UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION	MDL No. 2262
THIS DOCUMENT RELATES TO:	Master File No. 1:11-md-2262-NRB ECF Case
MAYOR AND CITY COUNCIL OF BALTIMORE, CITY OF NEW BRITAIN, VISTRA ENERGY CORP., YALE UNIVERSITY, JENNIE STUART MEDICAL CENTER, INC., AND SEIU PENSION PLANS MASTER TRUST, on behalf of themselves and all others similarly situated Plaintiffs, v. CREDIT SUISSE AG, CREDIT SUISSE (USA), INC., BANK OF AMERICA CORPORATION, BANK OF AMERICA, N.A., JP MORGAN CHASE & CO., JPMORGAN CHASE BANK, NATIONAL ASSOCIATION, BARCLAYS BANK PLC, UBS AG, DEUTSCHE BANK AG, CITIBANK NA, CITIGROUP INC., and ROYAL BANK OF CANADA, Defendants.	Case No.: 1:11-cv-05450-NRB **THIRD CONSOLIDATED AMENDED COMPLAINT** **JURY TRIAL DEMANDED**

1. Plaintiffs Mayor and City Council of Baltimore, City of New Britain, Vistra Energy Corp., Yale University, Jennie Stuart Medical Center, Inc., and SEIU Pension Plans Master Trust (collectively, the "OTC Plaintiffs"), on behalf of themselves and all others similarly situated, by their counsel, assert claims for violations of federal antitrust law, breach of contract and unjust enrichment against the Defendants identified below (collectively, "Defendants") arising from the collusion among Defendants and the other members of the LIBOR panel

(collectively, "panel banks") to manipulate the London InterBank Offered Rate ("LIBOR") from on or before August 2007 through at least May 2010 (the "Class Period").[1]

2. Several defendants have reached settlements with government authorities relating to the LIBOR conspiracy alleged in this complaint. These settlements contain admissions and reveal documentary evidence that confirms a global conspiracy to manipulate LIBOR during the Class Period, including:

- In August 2007, a senior RBS trader of Yen LIBOR told one of his colleagues that LIBOR is a "cartel now in London."[2] This price-fixing cartel existed from August 2007 through May 2010.

- On November 29, 2007, Barclays learned the confidential USD LIBOR submissions of ***every*** defendant before they were made public and adjusted its LIBOR submission downward by 20 basis points in order to stay within the pack of other banks' low LIBOR submissions.[3] Barclays managers issued standing instructions to stay within specific ranges of other panel banks USD submissions, indicating that Barclays believed that it would have continued access to every other panel bank's confidential LIBOR submissions before they were published. According to the CFTC's review of the evidence it collected, "Senior Barclays Treasury managers provided the [LIBOR] submitters with the ***general guidance*** that Barclays's submitted rates should be ***within ten basis points*** of the submissions by the other U.S. Dollar panel banks . . . ."[4]

- That same day, on November 29, 2007, a Barclays manager explained that "other banks 'are reluctant to post higher and because no one will get out of the pack, ***the pack sort of stays low***.'"[5] Barclays and UBS admitted that they issued and obeyed instructions to stay

[1] The Court dismissed OTC Plaintiffs' antitrust claim, brought on behalf of themselves and all others similarly situated, against all defendants except for Bank of America, Citibank, and JPMorgan by Order dated December 20, 2016. Plaintiffs remove the antitrust claims against the defendants and panel banks other than Bank of America, Citibank, and JPMorgan from this amended complaint but preserve the claim against all panel banks and the issues for appeal.

[2] *In the Matter of The Royal Bank of Scotland plc and RBS Securities Japan Limited,* CFTC Docket No. 13-14, Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings and Imposing Remedial Sanctions (Feb. 6, 2013) ("RBS CFTC") at 14.

[3] Financial Services Authority, Final Notice to Barclays Bank Plc (June 27, 2012) ("Barclays FSA") ¶ 118.

[4] *In the Matter of Barclays PLC, Barclays Bank PLC, and Barclays Capital. Inc.,* CFTC Docket No. 12-25, Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, as Amended, Making Findings and Imposing Remedial Sanctions (June 27, 2012) ("Barclays CFTC") at 20 (emphasis added).

[5] Letter from Denis J. McInerney, Chief, Criminal Division, Fraud Section, United States Department of Justice, Appendix A (June 26, 2012) ("Barclays SOF") ¶ 43 (emphasis added).

within the pack of other banks' low LIBOR submissions during large portions of the Class period.

- In communications between November 2007 and October 2008, Barclays' employees revealed that "all of the Contributor Panel banks, including Barclays, were contributing rates that were too low."[6]

- On April 27, 2008, a Barclays manager conceded, "to the extent that, um, the LIBORs have been understated, ***are we guilty of being part of the pack? You could say we are***."[7] As one Barclays submitter put it, "just set it where everyone else sets it, we do not want to be standing out."[8]

- In April 2008, the BBA acknowledged that no panel banks were "clean-clean" and that it understood what would happen to any bank that "moved against the trend of lower submissions."

- On May 21, 2008, when a Wall Street Journal reporter asked UBS by email why UBS had been "paying 12 basis points for [commercial paper] more than it was posting as a Libor quote," a senior manager at UBS told another senior UBS manager that "the answer would be 'because the whole street was doing the same and because we did not want to be an outlier in the libor fixings, just like everybody else.'"[9]

- On June 18, 2008, two UBS employees explained why it was important for banks to collusively suppress as part of an anticompetitive pack: "***…[Senior Manager B] want[s] us to get in line with the competition by Friday … if you are too low you get written about for being too low … if you are too high you get written about for being too high***."[10]

- Between June 2008 and April 2009, "UBS's 3-month U.S. Dollar LIBOR submissions were ***identical*** to the published LIBOR fix, and largely consistent with the published LIBOR fix in the other tenors."[11] This was the case even though "[d]uring this 10-month period, there were significant disruptions in the financial markets, affecting individual financial institutions in different ways."[12]

- The empirical evidence shows that the panel banks conspired to suppress USD LIBORs in a pack: they submitted LIBOR rates at similarly suppressed levels, which they could

[6] Barclays SOF ¶ 42.
[7] Barclays FSA ¶ 131 (emphasis added).
[8] Barclays FSA ¶ 123.
[9] Letter from Denis J. McInerney, Chief, Fraud Section, Criminal Division, United States Department of Justice (Dec. 18,2012) ("UBS SOF") ¶ 117.
[10] Financial Services Authority, Final Notice to UBS AG ¶ 124 (Dec. 19, 2012) ("UBS FSA") (emphasis added).
[11] UBS SOF ¶ 122 (emphasis added).
[12] UBS SOF ¶ 123.

not have done without colluding because their submissions diverged dramatically and in unpredictable ways from benchmark rates that tracked market fundamentals.

- On February 11, 2013, during testimony before the Parliamentary Commission on Banking Standards, Johnny Cameron, the former Chairman of Global Banking and Markets at RBS Group, characterized the LIBOR manipulation efforts as "***a cartel of people across a number of banks who felt they could fix it.***"[13]

- On April 12, 2013, the DOJ charged RBS with one count of ***"price-fixing" in violation of Section 1 of the Sherman Act***. RBS admitted that it was responsible for the acts of its employees charged in the Information, which alleged that, from at least as early as 2007 through at least 2010, RBS employees "engaged in a combination and conspiracy in unreasonable restraint of interstate and foreign commerce . . . the substantial terms of which were to fix the price of Yen LIBOR-based derivative products by fixing Yen LIBOR, a key price component of the price thereof, on certain occasions." Documents show that RBS colluded with other defendants in this price-fixing conspiracy.

3. Except as alleged in this Complaint, neither the OTC Plaintiffs nor other members of the public have access to the underlying facts relating to the panel banks' improper activities. Rather, that information lies exclusively within the possession and control of the panel banks and other insiders, which prevents the OTC Plaintiffs from further detailing the panel banks' misconduct. Moreover, numerous pending government investigations—both domestically and abroad, including by the United States Department of Justice ("DOJ"), the Commodity Futures Trading Commission ("CFTC"), the SEC, the British Financial Services Agency ("FSA") and the European Commission—concerning potential LIBOR manipulation and collusion could yield information from the panel banks' internal records or personnel that bears significantly on the OTC Plaintiffs' claims. Indeed, as one news report observed in detailing U.S. regulators' ongoing investigation, "[i]nternal bank emails may prove to be key evidence . . . because of the difficulty in proving that banks reported borrowing costs for LIBOR at one rate and obtained

[13] Parliamentary Commission on Banking Standards, Feb. 11, 2013; Testimony of Johnny Cameron.

funding at another."[14] The OTC Plaintiffs thus believe further evidentiary support for their allegations will come to light after a reasonable opportunity for discovery.

NATURE OF THE ACTION

4. This case arises from a global conspiracy to manipulate LIBOR—the reference point for determining interest rates for trillions of dollars in financial instruments worldwide—by a cadre of prominent financial institutions.

5. Throughout the Class Period, the panel banks conspired to, and did, manipulate LIBOR by misreporting the actual interest rates at which they expected they could borrow funds—*i.e.,* their true costs of borrowing—on a daily basis. By acting together and in concert to knowingly understate their true borrowing costs, the panel banks caused LIBOR to be calculated or suppressed artificially low, reaping hundreds of millions, if not billions, of dollars in ill-gotten gains.

6. Investigations regarding LIBOR are ongoing in the United States, Switzerland, Japan, United Kingdom, Canada, the European Union, and Singapore by ten different governmental agencies, including the DOJ, the SEC, the FSA, and the CFTC. Additionally, numerous employees, including supervisors, traders, and brokers, from various financial institutions have been accused of improper conduct related to LIBOR.

7. Several panel banks have reached settlements relating to their manipulation of LIBOR and other interest rate indices that have resulted in fees, admissions, and regulatory findings.

a. On June 27, 2012, Barclays agreed to pay a total of $453.6 million:

i. $200 million in connection with the investigation by Commodity

[14] David Enrich, Carrick Mollenkamp & Jean Eaglesham, "U.S. Libor Probe Includes BofA, Citi, UBS," *MarketWatch*, March 17, 2011.

Futures Trading Commission ("CFTC");[15]

ii. $160 million in connection with the investigation by Department of Justice ("DOJ");[16]

iii. $93.6 million in connection with the investigation by United Kingdom Financial Services Authority ("FSA").[17]

b. On December 19, 2012, UBS agreed to pay a total of $1.52 billion:

i. $700 million in connection with the investigation by CFTC;[18]

ii. $500 million in connection with the investigation by DOJ;[19]

iii. $259 million in connection with the investigation by FSA;[20] and

iv. $64 million in connection with the investigation by Swiss Financial Market Supervisory Authority ("FINMA").[21]

c. On February 6, 2013, RBS agreed to pay a total of $612 million:

i. $325 million in connection with the investigation by CFTC;[22]

ii. $150 million in connection with the investigation by DOJ;[23] and

iii. $137 million in connection with the investigation by FSA.[24]

8. The panel banks' manipulation of LIBOR allowed them to pay unduly low interest rates to investors, including OTC Plaintiffs, on LIBOR-based financial instruments during the Class Period. Accordingly, the OTC Plaintiffs seek relief for the damages they have

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[15] Barclays CFTC.
[16] Barclays SOF.
[17] Barclays FSA.
[18] *In the Matter of UBS AG and UBS Securities Japan Co., Ltd.,* CFTC Docket No. 13-09, Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, as Amended, Making Findings and Imposing Remedial Sanctions (Dec. 19, 2012) ("UBS CFTC").
[19] UBS SOF.
[20] UBS FSA.
[21] *FINMA Investigation into the Submission of Interest Rates for the Calculation of Interest Reference Rates such as LIBOR by UBS AG,* at 2 (Dec. 19, 2012).
[22] RBS CTFC.
[23] *United States* v. *Royal Bank of Scotland plc,* Deferred Prosecution Agreement, Attachment A (Feb. 5, 2013) ("RBS SOF").
[24] Financial Services Authority, Final Notice to the Royal Bank of Scotland (Feb. 6, 2013) ("RBS FSA").

suffered as a result of the panel banks' violations of federal and state law and for injunctive relief. OTC Plaintiffs assert claims under the Sherman Act, 15 U.S.C. § 1 *et seq.*, the Clayton Act, 15 U.S.C. § 12 *et seq*, and state law.

JURISDICTION AND VENUE

9. This action arises under Section 1 of the Sherman Act, 15 U.S.C., § 1, and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26, and state law.

10. This Court has jurisdiction under 28 U.S.C. §§ 1331 and 1337 and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26. The Court also has original jurisdiction over the state law claims under 28 U.S.C. § 1332(d)(2), 5(b), 6, because the action involves 100 or more class members; at least one member of the proposed class is a citizen of a State different from the State of citizenship of at least one defendant; at least one defendant is a citizen or subject of a foreign state; and the matter in controversy exceeds $5 million in sum or value.

11. Venue is proper in this District pursuant to Sections 4, 12 and 16 of the Clayton Act, 15 U.S.C. §§ 15, 22 and 26 and 28 U.S.C. § 1391(b), (c) and (d). One or more of the panel banks resided, transacted business, were found, or had agents in the District, a substantial part of the events giving rise to Plaintiffs' claims arose in the District, and a substantial portion of the affected interstate trade and commerce described herein has been carried out in this District.

THE PARTIES

Plaintiffs

12. Plaintiff Mayor and City Council of Baltimore ("Baltimore") is an independent city in the State of Maryland. During the Class Period, Baltimore owned and purchased hundreds of millions of dollars in interest rate swaps directly from at least one Defendant in which the rate of return was tied to LIBOR and was injured as a result of Defendants' anticompetitive conduct.

13. Plaintiff City of New Britain ("New Britain") is located in Connecticut. During the Class Period, New Britain owned and purchased tens of millions of dollars in interest rate swaps directly from at least one Defendant in which the rate of return was tied to LIBOR and was injured as a result of Defendants' anticompetitive conduct.

14. Plaintiff Vistra Energy Corp. ("Vistra"), formerly known as TEX Energy LLC and TCEH Corp. and successor-in-interest to Texas Competitive Electric Holdings Company LLC ("TCEH"), is an energy company operating an integrated power business in Texas, which includes TXU Energy and Luminant, and is headquartered in Dallas, Texas. Vistra was originally formed as a limited liability company under the name TEX Energy LLC on March 10, 2016, then it was converted into a corporation and renamed TCEH Corp. on October 3, 2016, and finally its name was again changed to Vistra Energy Corp. on November 4, 2016. During the Class Period, TCEH owned and purchased hundreds of millions of dollars in interest rate swaps directly from at least one of the Defendants in which the rate of return was tied to LIBOR and was injured as a result of Defendants' anticompetitive conduct. On October 3, 2016, TCEH transferred substantially all of its assets, including all its claims and causes of action against Defendants, to Vistra.

15. Plaintiff Yale University ("Yale") is located in New Haven, Connecticut. During the Class Period, Yale owned and purchased hundreds of millions of dollars in interest rate swaps directly from several of the Defendants in which the rate of return was tied to LIBOR and was injured as a result of Defendants' anticompetitive conduct.

16. Plaintiff Jennie Stuart Medical Center, Inc. ("Jennie Stuart") is a non-stock, non profit corporation organized and existing under the laws of the Commonwealth of Kentucky, with its principal place of business in Kentucky. During the Class Period, Jennie Stuart owned

and purchased an interest rate swap directly from at least one of the Defendants in which the rate of return was tied to LIBOR and was injured as a result of Defendants' anticompetitive conduct.[25]

17. Plaintiff SEIU Pension Plans Master Trust ("SEIU") is a consortium of funds with total assets of over $1.3 billion. The funds are multi-employer Taft-Hartley pension funds headquartered in Washington, D.C. SEIU purchased LIBOR-linked bonds in the listed quantities from the specified Defendants or their directly controlled subsidiaries, which it held during the Class Period, as follows:

- 500,000 units of CUSIP 225434DS5, issued by Credit Suisse (USA), Inc., from Credit Suisse Securities (USA) LLC on November 15, 2006;
- 200,000 units of CUSIP 78008EWA1, issued by RBC, from RBC Dain Rauscher Inc. on June 4, 2009

Defendants[26]

18. Defendant Bank of America Corporation is a Delaware corporation headquartered in Charlotte, North Carolina. Defendant Bank of America, N.A.—a federally-chartered national banking association headquartered in Charlotte, North Carolina—is an indirect, wholly-owned subsidiary of Defendant Bank of America Corporation. Defendants Bank of America Corporation and Bank of America, N.A. are referenced collectively in this Complaint as "Bank of America."

[25] The Court denied the OTC Plaintiffs' motion for leave to amend their Complaint to include Plaintiff Highlander Realty, LLC's ("Highlander") claims by Order dated November 3, 2015. Plaintiffs remove Highlander's claims from this amended complaint but preserve the claim and the issues for appeal.

[26] The Court dismissed OTC Plaintiffs' breach of contract and unjust enrichment claims against defendants that were not counterparties with a named plaintiff by Order dated June 23, 2014. Plaintiffs remove their breach of contract and unjust enrichment claims against non-counterparty defendants in this amended complaint but preserve the claims and the issues for appeal.

19. Co-Conspirator Bank of Tokyo-Mitsubishi UFJ Ltd. ("BTMU") is a Japanese company headquartered in Tokyo, Japan.

20. Defendant Barclays Bank plc ("Barclays") is a British public limited company headquartered in London, England.

21. Defendant Citigroup, Inc. is a Delaware corporation headquartered in New York, New York. Defendant Citibank, N.A.—a federally-chartered national banking association headquartered in New York, New York—is a wholly-owned subsidiary of Defendant Citigroup, Inc. Defendants Citigroup, Inc. and Citibank, N.A. are referenced collectively in this Complaint as "Citibank."

22. Co-Conspirator Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. ("Rabobank") is a financial services provider headquartered in Utrecht, the Netherlands.

23. Defendant Credit Suisse AG is a Swiss company headquartered in Zurich, Switzerland. Defendant Credit Suisse International is a bank domiciled in the United Kingdom and an indirect wholly owned subsidiary of Credit Suisse AG. Defendant Credit Suisse (USA), Inc. is an indirect wholly owned subsidiary of Credit Suisse AG and is domiciled in Wilmington, Delaware. Credit Suisse (USA), Inc. is part of the "integrated global bank" Credit Suisse AG, is controlled by the Credit Suisse AG, and its debt securities are guaranteed by Credit Suisse AG. Collectively, these entities are referred to as "Credit Suisse." Credit Suisse (USA), Inc., is Credit Suisse AG's authorized representative in the United States.

24. Credit Suisse International and its subsidiaries are "controlled" by their parent, Credit Suisse AG, as Credit Suisse's own financial reports state. These entities operate under a unified brand and logo, and Credit Suisse presents itself as an "integrated global bank." Credit Suisse takes a unified approach to risk management that requires certain Credit Suisse

International personnel ultimately to report to Credit Suisse AG personnel. Credit Suisse International is managed as part of the Investment Banking Division of Credit Suisse AG, and Credit Suisse International has revenue sharing agreements with its parent. Credit Suisse AG ensures that its subsidiary is able to meet its debt obligations, and makes loans worth billions of dollars to that end.

25. Credit Suisse also has overarching organizational and employment policies. Credit Suisse International and Credit Suisse AG have overlapping Boards of Directors, and Credit Suisse AG approves all Board appointments for its subsidiary Credit Suisse International. The Credit Suisse AG Remuneration Committee recommends employee compensation amounts for Credit Suisse International. Credit Suisse International also adheres to employment policies put out by its parent, Credit Suisse AG

26. Defendant Deutsche Bank AG ("Deutsche Bank") is a German financial services company headquartered in Frankfurt, Germany.

27. Co-Conspirator HSBC Holdings plc is a United Kingdom public limited company headquartered in London, England. Co-Conspirator HSBC Bank plc—a United Kingdom public limited company headquartered in London, England—is a wholly-owned subsidiary of Co-Conspirator HSBC Holdings plc. Co-Conspirators HSBC Holdings plc and HSBC Bank plc are referenced collectively in this Complaint as "HSBC."

28. Defendant JPMorgan Chase & Co. is a Delaware corporation headquartered in New York, New York. Defendant JPMorgan Chase Bank, National Association—a federally-chartered national banking association headquartered in New York, New York—is a wholly-owned subsidiary of Defendant JPMorgan Chase & Co. Defendants JPMorgan Chase & Co. and JPMorgan Chase Bank, National Association are referenced together in this Complaint as

"JPMorgan" or "JPMorgan Chase."

29. Co-Conspirator Lloyds Banking Group plc ("Lloyds") is a United Kingdom public limited company headquartered in London, England. Co-Conspirator Lloyds was formed in 2009 through the acquisition of Co-Conspirator HBOS plc ("HBOS")—a United Kingdom banking and insurance company headquartered in Edinburgh, Scotland—by Lloyds TSB Bank plc.

30. Defendant Royal Bank of Canada ("RBC") is a Canada company headquartered in Toronto, Canada.

31. Co-Conspirator Société Générale S.A. ("SocGen") is a financial services company headquartered in Paris, France and is the parent company of Societe Generale Group. SocGen offers commercial, retail, private banking services and investment banking services, including financial and commodities futures brokerage services.

32. Co-Conspirator The Norinchukin Bank ("Norinchukin") is a Japanese cooperative bank headquartered in Tokyo, Japan.

33. Co-conspirator The Royal Bank of Scotland Group plc ("RBS Group") is a United Kingdom public limited company headquartered in Edinburgh, Scotland. Citizens Bank of Massachusetts, a/k/a RBS Citizens Bank, N.A. ("Citizens Bank"), is a wholly owned subsidiary of RBS Group. Collectively, these entities are referred to as "RBS."

34. RBS Group, at all times material hereto, set the policies, controlled and directed Citizens Bank as to its commercial lending and swaps businesses.

35. RBS Group used Citizens Bank as its arm to conduct banking activities in the United States, and oversaw Citizens Bank through its central banking committees. For instance, the Chief Executive of Citizens Financial Group (now RBS Citizens Financial Group), Citizens

Bank's parent, had a permanent seat on RBS's Executive Committee, whose goals include complete oversight of the group's activities, including determining and delivering group strategy.

36. RBS Group and Citizens Bank operate under shared logos, RBS Group receives the revenues from Citizens Bank's operations, and RBS Group provides financing and financial support to Citizens Bank in order for the bank to conduct its activities.

37. Defendant UBS AG ("UBS") is a Swiss company based in Basel and Zurich, Switzerland.

38. Co-Conspirator WestLB AG is a German joint stock company headquartered in Dusseldorf, Germany. Co-Conspirator Westdeutsche ImmobilienBank AG—a German company headquartered in Mainz, Germany—is a wholly-owned subsidiary of WestLB AG. Defendants WestLB AG and Westdeutsche ImmobilienBank AG are referenced together in this Complaint as "WestLB."

39. Defendants and Co-Conspirators Bank of America, BTMU, Barclays, Citibank, Rabobank, Credit Suisse, Deutsche Bank, HSBC, JPMorgan Chase, Lloyds, HBOS, RBC, Norinchukin, RBS, SocGen, UBS, and WestLB (collectively, "panel banks") were members of the BBA's USD-LIBOR panel during the Class Period.[27]

UNNAMED CO-CONSPIRATORS

40. Various other entities and individuals not named as Defendants in this Complaint participated as co-conspirators in the acts complained of and performed acts and made statements that aided and abetted and furthered the unlawful conduct alleged herein.

DEFINITIONS

41. LIBOR-Based Instruments are Derivative Instruments and Non-Derivative

[27] SocGen replaced HBOS on the USD LIBOR panel on February 9, 2009.

Instruments that are indexed to one or more LIBOR currencies (*e.g.*, USD-LIBOR, Yen-LIBOR, and Euro-LIBOR). Only LIBOR-Based Instruments that were sold in over-the-counter transactions are at issue in the OTC Plaintiffs' Complaint.

42. Derivative Instruments include but are not limited to asset swaps, collateralized debt obligations, credit default swaps, forward rate agreements, inflation swaps, interest rate swaps, total return swaps, and options.

a. Asset Swaps are a type of over-the-counter derivative in which one investor exchanges the cash flows of an asset or pool of assets for a different cash flow. This is done without affecting the underlying investment position. For instance, if a Defendant wanted to own a particular Euro-denominated fixed rate issue, but preferred to receive a floating rate US dollar cash flow, the Defendant could purchase the Euro-denominated bond and then enter into an asset swap with another bank or investor to receive US Dollar LIBOR payments (+/- spread) in return for paying a fixed rate coupon in Euros to the bank or investor. Asset Swaps can be indexed to LIBOR.

b. Collateralized Debt Obligations ("CDOs") are a type of structured asset backed security ("ABS"). ABSs are derivatives and are sold in over-the-counter transactions. CDOs have multiple tranches, or levels of risk, and are issued by "special purpose entities." They are collateralized by debt obligations including bonds and loans. Each tranche offers a varying degree of risk and return so as to meet investor demand. Interest and principal payments are made in order of seniority, so that junior tranches offer higher coupon payments (and interest rates) or lower prices to compensate for additional default risk; in general, "senior" tranches are considered the safest securities. In some cases, investors utilize leverage and hope to profit from the excess of the spread offered by the senior tranche and their cost of borrowing. This is because

senior tranches pay a spread above LIBOR despite their AAA-ratings. CDOs can be indexed to LIBOR.

c. Credit Default Swaps ("CDSs") are a type of over-the-counter, credit-based derivative whereby the seller of the CDSs compensates the buyer of the CDS only if the underlying loan goes into default or has another "credit event." The buyer of the CDS makes a series of payments (the CDS "fee" or "spread") to the seller and, in exchange, receives a payoff if the loan defaults. In the event of default, the buyer of the CDS receives compensation (usually the face value of the loan), and the seller of the CDS takes possession of the defaulted loan. However, anyone can purchase a CDS, even buyers who do not hold the loan instrument and who have no direct insurable interest in the loan (these are called "naked" CDSs).

d. Forward Rate Agreements ("FRAs") are a type of over-the-counter derivative based on a "forward contract." The contract sets the rate of interest or the currency exchange rate to paid or received on an obligation beginning at a future start date. The contract will determine the rates to be used along with the termination date and notional value. On this type of agreement, it is only the differential that is paid on the notional amount of the contract. It is paid on the effective date. The reference rate is fixed one or two days before the effective date, dependent on the market convention for the particular currency. An FRA differs from a swap in that a payment is only made once at maturity. FRAs can be indexed to LIBOR.

e. Inflation Swaps are a type of over-the-counter derivative used to transfer inflation risk from one party to another through an exchange of cash flows. In an inflation swap, one party pays a fixed rate on a notional principal amount, while the other party pays a floating rate linked to an inflation index. The party paying the floating rate pays the inflation adjusted rate multiplied by the notional principal amount. Inflation Swaps can be indexed to LIBOR.

f. Interest Rate Swaps are a type of over-the-counter derivative in which two parties agree to exchange interest rate cash flows, based on a specified notional amount from a fixed rate to a floating rate (or vice-versa) or from one floating rate to another. These are highly liquid financial derivatives. Interest rate swaps are commonly used for both hedging and speculating. In an interest rate swap, each party agrees to pay either a fixed or floating rate denominated in a particular currency to the other party. The fixed or floating rate is multiplied by a notional principal amount. This notional amount is typically not exchanged between counterparties, but is used only for calculating the size of cash flows to be exchanged. Interest Rate Swaps can be indexed to LIBOR.

g. Total Return Swaps are a type of over-the-counter derivative based on financial contracts that transfer both the credit and market risk of an underlying asset. These derivatives allow one contracting party to derive the economic benefit of owning an asset without putting that asset on its balance sheet; the other contracting party, which retains the underlying asset on its balance sheet, is, in effect, buying protection against loss on that asset's value. Total Return Swaps can be indexed to LIBOR.

h. Options are a type of over-the-counter derivative based on a contract between two parties for a future transaction on an asset. The other Derivative Instruments, defined above, can serve as the asset for an Option; an Option on a swap is commonly referred to as a "swaption". The buyer of an option gains the right, but not the obligation, to engage in that future transaction (buy or sell) while the seller of the option is obligated to fulfill the future transaction. In general, the option's price is the difference between the asset's reference price and the value of the underlying asset (*i.e.*, a stock, bond, currency contract, or futures contract)

plus a spread. Thus, where the underlying asset is indexed to LIBOR, the Option's price is impacted by LIBOR.

43. Non-derivative instruments include but are not limited to floating rate notes. Floating rate notes evidence an amount of money owed to the buyer from the seller. The interest rate on floating rate notes is adjusted at contractually-set intervals and is based on a variable rate index, such as LIBOR. Thus, floating rate notes can be indexed to LIBOR.

CLASS ACTION ALLEGATIONS

44. The OTC Plaintiffs bring this action as a class action under Rules 23(a) and 23(b)(3) of the Federal Rules of Civil Procedure, on behalf of itself and all others similarly situated. The "Class" is defined as:

> All persons or entities (other than Defendants and their employees, affiliates, parents, and subsidiaries) that purchased in the United States, directly from a Defendant (or a Defendant's subsidiaries or affiliates), a financial instrument that paid interest indexed to LIBOR ("LIBOR-Based Instrument") and that owned the LIBOR-Based Instrument any time during the period August 2007 through May 2010 (the "Class Period").

45. The Class is so numerous that joinder of all members is impracticable. While the exact number of Class members is unknown at this time, the OTC Plaintiffs are informed and believe that at least thousands of geographically dispersed Class members purchased LIBOR-Based Derivatives directly from panel banks during the Class Period.

46. The OTC Plaintiffs' claims are typical of the claims of the other members of the Class. The OTC Plaintiffs and the members of the Class sustained damages arising out of the panel banks' common course of conduct in violation of law as complained herein. The injuries and damages of each member of the Class were directly caused by the panel banks' wrongful conduct.

47. The OTC Plaintiffs will fairly and adequately protect the interests of the members

of the Class and has retained counsel competent and experienced in class action litigation, including antitrust class action litigation.

48. Common questions of law and fact exist as to all members of the Class which predominate over any questions affecting solely individual members of the Class. Among the questions of law and fact common to the Class are:

a. Whether the panel banks conspired with others to artificially suppress LIBOR in violation of the Sherman Act;

b. Whether the panel banks' conduct had an anticompetitive and manipulative effect on LIBOR during the Class Period;

c. Whether the panel banks' conduct negatively affected the rates of return of LIBOR-Based Instruments purchased directly from the Defendants during the Class Period; and

d. The appropriate measure of damages for the injury sustained by the OTC Plaintiffs and other members of the Class as a result of Defendants' unlawful activities.

49. A class action is superior to other available methods for the fair and efficient adjudication of this controversy because joinder of all Class members is impracticable. The prosecution of separate actions by individual members of the Class would impose heavy burdens upon the courts and Defendants, and would create a risk of inconsistent or varying adjudications of the questions of law and fact common to the Class. A class action, on the other hand, would achieve substantial economies of time, effort and expense, and would assure uniformity of decision as to persons similarly situated without sacrificing procedural fairness or bringing about other undesirable results.

50. The interest of members of the Class in individually controlling the prosecution of separate actions is theoretical rather than practical. The Class has a high degree of cohesion, and

prosecution of the action through representatives would be unobjectionable. The amounts at stake for Class members, while substantial in the aggregate, are not great enough individually to enable them to maintain separate suits against Defendants. The OTC Plaintiffs do not anticipate any difficulty in the management of this action as a class action.

FACTUAL ALLEGATIONS

51. As discussed in more detail below, the British Bankers' Association ("BBA") rate-setting cartel provides the means through which the panel banks could manipulate LIBOR; banks were motivated to manipulate LIBOR, among other reasons, to hide their precarious financial conditions and to financially benefit from a manipulated LIBOR; there is economic evidence that LIBOR was manipulated and could not have been so manipulated in the absence of a conspiracy; there are governmental investigations worldwide regarding LIBOR manipulation, many of which have already resulted in reports, admissions, and orders that reveal details about the panel banks' conspiracy to manipulate LIBOR; there are news reports that LIBOR was manipulated; and there are admissions of collusive manipulation with respect to Yen LIBOR and other LIBOR currencies. The foregoing factors evidence a worldwide conspiracy regarding LIBOR manipulation. While the panel banks have at times used different means to bring out their ends, their goal throughout has been to collude to set the rates of LIBOR in a fashion that benefits the panel banks' own interests, in contravention of the LIBOR definition.

A. LIBOR Is Administered By The BBA Rate-Setting Cartel

52. In August 2007, a senior RBS trader of Yen LIBOR told one of his colleagues that LIBOR is a "cartel now in London." RBS CFTC Order at 14. This price-fixing cartel existed from at least August 2007 through May 2010.

53. The BBA's activities in setting LIBOR for various currencies reflect a global rate-setting cartel. As one commentator has noted, "LIBOR is not a real market rate of interest and is

instead set by a cartel of mostly foreign banks operating in London with little or no oversight and no transparency. . . . The Wall Street Journal reported that the BBA is hesitant to change how LIBOR is calculated because it is worried about legal liability which is not a surprise. If the BBA admits that LIBOR isn't a market rate but a cartel rate that was established through price fixing, it will be subject to global lawsuits resulting from fraudulent behavior and misrepresentations. The likelihood of the BBA reforming itself, providing transparency and giving up its cartel monopoly is very low given the astronomical liability that will result."[28] Indeed, the BBA directly profits from the usage of LIBOR. Since 2009, it has operated BBA LIBOR, Ltd., which earns revenue from licensing the rate.

54. The BBA describes itself on its website as "the leading trade association for the U.K. banking and financial services sector. We speak for over 200 member banks from 60 countries on the full range of U.K. and international banking issues."[29] The panel banks are among the member banks of the BBA. As the BBA itself concedes, it is not a regulatory body and has no regulatory function.[30] Its activities are not overseen by any U.K. or foreign regulatory agency. It is governed by a board of member banks that meets four times each year. The board is composed of senior executives from twelve banks, including the panel banks Barclays Bank plc, Citibank NA, Credit Suisse, Deutsche Bank AG, HSBC Bank plc, J.P. Morgan Europe Ltd., and the Royal Bank of Scotland plc.[31] "This is a quaint, insider club which is clearly not fit for the 21st century," said Richard Werner, a finance professor at the University of Southampton, England.[32]

[28] http://www.thesunshinereport.net/marksunshine/?p=36, last accessed April 30, 2012.
[29] http://www.bba.org.uk/about-us, last accessed on April 30, 2012.
[30] http://www.bba.org.uk/blog/article/bba-repeats-commitment-to-bba-libor, last accessed on April 30, 2012
[31] http://www.bba.org.uk/about-us, last accessed on April 30, 2012.
[32] http://www.bloomberg.com/news/2012-02-21/ubs-turning-whistleblower-in-libor-probe-pressures-

Footnote continued on next page

55. Commencing in January of 1986, the BBA began disseminating LIBOR, initially in three currencies: U.S. dollars, Japanese Yen, and pound sterling; LIBOR is now disseminated for ten currencies: the foregoing three, the Australian dollar, the Canadian dollar, the New Zealand dollar, the Danish krone, the Euro, the Swiss Franc, and the Swedish krone.

56. LIBOR is a daily benchmark interest rate at which designated contributor panel banks predict they can borrow unsecured funds from other banks in the London wholesale money market for fifteen different maturities ranging from overnight to one year. As "the primary benchmark for short term interest rates globally,"[33] LIBOR has occupied (and continues to occupy) a crucial role in the operation of financial markets. For example, LIBOR is commonly used as the floating rate on interest rate swaps; market participants commonly set the interest rate on floating-rate notes as a spread against LIBOR (*e.g.*, "LIBOR + [X] bps")[34] and use LIBOR as a basis to determine the correct rate of return on short-term fixed-rate notes (by comparing the offered rate to LIBOR).

57. LIBOR affects the pricing of trillions of dollars' worth of financial transactions. In a May 21, 2009 press release, the BBA called LIBOR "the world's most important number."[35] Accordingly, it is well-established among market participants that confidence in LIBOR "matters, because the rate system plays a vital role in the economy."[36]

58. As the CFTC's Order related to UBS stated:

> LIBOR is the most widely used benchmark interest rate throughout the world.

Footnote continued from previous page
rivals.html, last accessed on April 30, 2012.

[33] http://www.bbalibor.com/bbalibor-explained/the-basics, last accessed on April 19, 2012.

[34] The term "bps" stands for basis points. 100 basis points equal 1%.

[35] http://www.bbalibor.com/news-releases/bba-libor-the-worlds-most-important-number-now-tweets-daily.

[36] Carrik Mollenkamp and Mark Whitehouse, "Study Casts Doubt on Key Rate --- WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor," *The Wall Street Journal*, May 29, 2008.

> LIBOR is intended to be a barometer to measure strain in money markets and is often a gauge of the market's expectation of future central bank interest rates. Approximately $350 trillion of notional swaps and $10 trillion of loans are indexed to LIBOR. LIBOR also is the basis for settlement of interest rate futures and options contracts on many of the world's major futures and options exchanges, including the one-month and three-month Eurodollar futures contracts on the Chicago Mercantile Exchange ("CME"). Moreover, LIBOR is fundamentally critical to financial markets and has an enormously widespread impact on global markets and consumers.

UBS CFTC at 6.

59. The review of LIBOR conducted by Marvin Wheatley, the managing director of the FSA, at the request of the British Government, assumed that LIBOR was the benchmark for 50% of certain financial instruments: floating rate notes, interest rate swaps, and forward rate agreements.[37]

60. LIBOR is set by the BBA and its member banks. Each of the ten aforementioned currencies is overseen by a separate LIBOR panel created by the BBA. During the Class Period, designated contributing panels ranged in size from eight banks for Australian dollar, Swedish krona, Danish krone, and New Zealand dollar panels to sixteen banks for U.S. dollar, pound sterling, Euro, and Japanese yen panels. There is substantial overlap in membership among the panels. For example, during the Class Period, nine of the sixteen banks that served on the U.S. dollar panel also served on the Japanese yen, Swiss franc and Euro LIBOR panels.[38] Similarly, thirteen banks participated on both the dollar and yen LIBOR panels[39] and eleven banks participated on both the U.S. dollar and Swiss franc LIBOR panels.[40] It is a requirement of

[37] The Wheatley Review of LIBOR: Final Report (Sept. 2012), *available at* http://www.hm-treasury.gov.uk/wheatley_review.htm (last visited April 16, 2013).

[38] Those banks are Bank of Tokyo, Barclays, Citibank, Deutsche Bank, HSBC, JP Morgan Chase, Lloyds, Rabobank, RBS, and UBS

[39] Those banks are Bank of America, Bank of Tokyo, Barclays, Citibank, Deutsche Bank, HSBC, JP Morgan Chase, Lloyds, Rabobank, RBS, Société Générale (beginning in 2009), UBS, and West LB.

[40] Those banks are Bank of Tokyo, Barclays, Citibank, Credit Suisse, Deutsche Bank, HSBC, JP Morgan Chase, Lloyds, Rabobank, RBS, and UBS.

membership of a LIBOR contributor panel that the bank is regulated and authorized to trade on the London money market. As the BBA recently told Bloomberg: "As all contributor banks are regulated, they are responsible to their regulators, rather than us."[41]

61. According to the BBA's "LIBOR Governance and Scrutiny" report issued in 2008,[42] "Thomson Reuters...act[s] as the 'designated distributor' of BBA LIBOR rates. All contributions to the LIBOR rate-setting process are collected by Thomson Reuters, who currently perform[s] checking procedures, supervised by the LIBOR manager, on all the submissions before running the calculation and distributing the fixes."

62. During the Class Period, the BBA purported to establish LIBOR based on the rates that designated banks for each currency would have to pay for an unsecured loan for each designated maturity period.[43] Every day, the banks responded to the BBA's question: "At what rate could you borrow funds, were you to do so by asking for and then accepting inter-bank offers in a reasonable market size just prior to 11 am?" On its website, the BBA explains "a bank will know what its credit and liquidity risk profile is from rates at which it has dealt and can construct a curve to predict accurately the correct rate for currencies or maturities in which it has not been active." The banks informed the BBA of their costs of borrowing funds at different maturity dates (*e.g.*, one month, three months, six months). Contributed rates are ranked in descending order and the arithmetic mean of only the middle two quartiles is used to formulate the resulting BBA LIBOR calculation for that particular currency and maturity.[44]

63. Thomson Reuters calculates and publishes the rates each business day by

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[41] http://www.bba.org.uk/blog/article/bba-repeats-commitment-to-bba-libor, last accessed on April 30, 2012.

[42] http://www.bbalibor.com/news-releases/libor-gets-enhanced-governance-and-scrutiny-procedures, last accessed on April 30, 2012.

[43] http://www.bbalibor.com/bbalibor-explained/the-basics, last accessed on April 30, 2012.

[44] http://www.bbalibor.com/technical-aspects/setting-bbalibor, last accessed March 30, 2012.

approximately 11:30 a.m. London Time. Fifteen maturities (or "tenors") are quoted for each currency, ranging from overnight to twelve months. The published rates are made available worldwide by Thomson Reuters and other data vendors through electronic means and through a variety of information sources. In addition to the LIBOR fix resulting from the calculation, Thomson Reuters publishes each Contributor Panel bank's submitted rates along with the names of the banks.

64. No regulatory agency oversees the setting of LIBOR by the BBA and its members. The resultant rates are not filed with, or subject to the approval of, any regulatory agency. The BBA has been quoted as saying it "calculates and produces BBA Libor at the request of our members for the good of the market."[45]

65. The LIBOR-setting process was designed to proceed in accordance with the BBA LIBOR panel rules. Three key panel rules described below operated to make the LIBOR-setting process a competitive process that produced competitively determined daily LIBOR rates and established a daily contest between the panel banks to signal their relative ranking in terms of credit risk, access to funding, and liquidity profile.

66. The first key panel rule required each of the panel banks to independently exercise its good faith judgment each day about the interest rate that it would be required to pay, based upon its own expert knowledge of market conditions, including supply and demand conditions and the panel bank's own competitive posture as a borrower within the market for interbank loan funds. Through the mechanism of individual submissions reflecting each submitting bank's honest competitive posture as a borrower each day, the composite LIBOR reflected, and moved from day to day based upon, actual competitive conditions in the London

[45] http://www.businessweek.com/news/2012-03-06/libor-links-deleted-as-bank-group-backs-away-from-tarnished-rate, last accessed on April 30, 2012.

interbank loan market.

67. This panel rule meant that each bank's LIBOR submissions should accurately reflect the estimated costs of the bank's borrowing costs in the interbank lending market—rather than represent an artificial number generated to benefit the bank's trading positions, enhance the bank's reputation as creditworthy, or something else. As Barclays, UBS, and RBS admitted:

> The basis for a Contributor Panel bank's submission, according to the BBA, must be the rate at which members of the bank's staff primarily responsible for management of a bank's cash, rather than a bank's derivative trading book, consider that the bank can borrow unsecured interbank funds in the London money market. Further, according to the BBA, a Contributor Panel bank may not contribute a rate based on the pricing of any derivative instrument. In other words, a Contributor Panel bank's LIBOR submissions should not be influenced by its motive to maximize profit or minimize losses in derivative transactions tied to LIBOR.

Barclays DOJ ¶ 6. *See* UBS DOJ ¶ 7; RBS DOJ ¶ 7.

68. The second key panel rule mandated that each panel bank's daily submissions would remain confidential until after the calculation and publication of the daily LIBOR rates. Adherence to this rule would prevent collusion and ensure that each panel bank's submission would be independent of the others, and therefore reflect only that panel bank's independent expert judgment concerning its own competitive posture as a borrower within the market. As defendants Barclays, UBS, and RBS have admitted: "According to the BBA, from at least 2005 to the present, each Contributor Panel bank must submit its rate without reference to rates contributed by other Contributor Panel banks." Barclays DOJ ¶ 6, *see* UBS DOJ ¶ 7, RBS DOJ ¶ 7.

69. The third key panel rule mandated that upon the publication of each day's LIBOR, the BBA, through Thomson Reuters, simultaneously published the individual rates submitted in the LIBOR-setting process for each panel bank, currency and tenor for that day.

This third rule made the process and the individual panel bank submissions transparent on an *ex post* basis, to the capital markets and the panel banks themselves.

70. Moreover, this third rule, operating in conjunction with the first two rules, reflected that the LIBOR-setting process was a competitive process. Because the capital markets view the funding costs of the panel banks as reflective of their relative creditworthiness and financial strength, the daily disclosure of the panel bank LIBOR submissions signaled each panel bank's creditworthiness and financial strength to the market. Lower funding costs reflected greater creditworthiness and financial strength, and vice versa.

71. Each panel bank was in competition with the others to submit the lowest honest funding cost estimate possible. By creating this incentive to signal the lowest honest funding cost, this third rule was designed to ensure that the LIBOR setting process produce, as the BBA termed it, "a unique snapshot of competitive funding costs."

72. These three rules were the safeguards ensuring that LIBOR would reflect the forces of competition in the London interbank loan market. Collusion to submit artificial and coordinated rates not only violated the three rules but removed LIBOR's linkage to competition.

B. <u>The Panel Banks' Incentives To Collude To Suppress USD LIBOR</u>

73. The panel banks each had substantial incentives to collude to suppress USD LIBOR between August 2007 and May 2010.

74. <u>First</u>, every panel bank was motivated to understate its borrowing costs during this time, particularly given investors' serious concerns over the stability of the market in the wake of the financial crisis that emerged in 2007—and over the level of risk associated with the banks. The banks could not do this effectively without colluding to suppress as a group.

75. A bank that submits high LIBORs runs the risk of being perceived as a weak institution, which can lead to negative consequences for the bank. As the DOJ explained, and

UBS admitted:

> Because a bank's LIBOR contributions, even if they are not based entirely on actual money market transactions, should correspond to the cost at which the bank perceives that it can borrow funds in the relevant market, ***a bank's LIBOR contributions may be viewed as an indicator of a bank's creditworthiness. If a bank's LIBOR contributions are relatively high, those submissions could suggest that the bank is paying more than others to borrow funds. Thus, a bank could be perceived to be experiencing financial difficulties because lenders were charging higher rates to that bank.***
>
> UBS DOJ ¶98-99 (emphasis added).

76. The instructions at UBS to suppress USD LIBOR to stay within the pack and err on the low side "were issued, at least in significant part, because of concerns that if UBS submitted higher LIBOR rates relative to other banks, UBS could attract negative attention in the media."[46] In so acting, UBS "sought to avoid negative media attention and, relatedly, sought to avoid creating an impression that it was having difficulty obtaining funds."[47] To the extent those directions from UBS management "were motivated by reputational concerns," they "were inconsistent with the definition of LIBOR."[48]

77. In September 22, 2008, a UBS employee wrote in an electronic chat that "the real cash market isn't trading anywhere near LIBOR," and he suspected the reason was that Banks' "undervalue [LIBOR] in times like this . . . so as to not show where they really pay in case it creates headlines about that bank being desperate for cash." UBS DOJ ¶ 101.

78. Similarly, the CFTC found that Barclays' misconduct in knowingly submitting false LIBOR quotes stemmed from its desire "to protect [its] reputation against what it believed were negative and unfair media and market perceptions that Barclays had a liquidity problem

[46] UBS DOJ SOF ¶ 100.
[47] *Id.*
[48] *Id.*

based in part on its high LIBOR submissions."[49]

a. The DOJ observed that Barclays' improper submissions "began in approximately late August 2007," shortly after Barclays "twice drew on the Bank of England's emergency liquidity facility (known as the 'window'), borrowing approximately £1.6 billion the second time."[50] The DOJ further explained:

> News articles about the withdrawals in late August 2007 noted a decline in Barclays's share price and questioned Barclays's liquidity position, while Barclays explained publicly that the visits to the window were due to technical glitches. Meanwhile, because of the onset of the financial crisis, there was diminished liquidity in funding markets, and Barclays set certain of its LIBOR submissions relatively high compared to other Contributor Panel banks. In early September 2007, Barclays received negative press coverage concerning Barclays's high LIBOR submissions in Sterling, Euro, and Dollar. A news article questioned Barclays's liquidity position, in light of Barclays's high LIBOR submissions and its visits to the Bank of England's window, and noted that Barclays's share price had fallen.[51]

b. Senior managers at Barclays "expressed concern about the negative publicity."[52] Managers on Barclays' money-markets desk and in its Treasury department "who gave the instruction to submit lower LIBORs, which resulted in improperly low LIBOR submissions," aimed "to avoid inaccurate, negative attention about Barclays's financial health as a result of its high LIBOR submissions relative to other banks."[53] They "wanted to prevent any adverse conclusions about Barclays's borrowing costs, and more generally, its financial condition, because they believed that those conclusions would be mistaken and that other Contributor Panel banks were submitting unrealistically low Dollar LIBORs."[54]

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[49] Barclays CFTC at 19.
[50] Barclays DOJ SOF ¶39.
[51] *Id.*
[52] *Id.* ¶40.
[53] *Id.*
[54] *Id.*

c. Because those managers "sought to avoid what they believed would be an inaccurate perception that Barclays was not in good financial shape when compared to its peers," Barclays "engaged in this misconduct in order to reduce the reputational risk associated with proper, higher LIBOR submissions."[55] In other words, the DOJ explained—borrowing from Barclays employees' comments in internal communications—"***<u>the purpose of the strategy of under-reporting Dollar LIBORs was to keep Barclays's 'head below the parapet' so that it did not get 'shot' off</u>***."[56]

79. Analysts at Citigroup Global Markets—a subsidiary of Defendant Citigroup—similarly acknowledged in an April 10, 2008 report:

> [T]he most obvious explanation for LIBOR being set so low is the prevailing fear of being perceived as a weak hand in this fragile market environment. If a bank is not held to transact at its posted LIBOR level, there is little incentive for it to post a rate that is more reflective of real lending levels, let alone one higher than its competitors. Because all LIBOR postings are publicly disclosed, any bank posting a high LIBOR level runs the risk of being perceived as needing funding. With markets in such a fragile state, this kind of perception could have dangerous consequences.[57]

80. Strategists at entities affiliated with other panel banks likewise confirmed these incentives. Echoing Peng's sentiment, William Porter, credit strategist at Credit Suisse, said in April 2008 that he believed the three-month USD-LIBOR was 40 basis points below where it should be.[58] And the next month, Tim Bond, head of asset-allocation research of Barclays Capital—a subsidiary of Defendant Barclays—observed that banks routinely misstated borrowing costs to the BBA to avoid the perception that they faced difficulty raising funds as

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[55] *Id.*
[56] *Id.* (emphasis added).
[57] Scott Peng, Chintan (Monty) Gandhi, & Alexander Tyo, "Special Topic: Is LIBOR Broken?," April 10, 2008.
[58] Carrick Mollenkamp, "Libor Surges After Scrutiny Does, Too," *The Wall Street Journal*, April 18, 2008.

credit markets seized up.[59]

81. The only way for every Defendant to appear financially strong through low LIBOR submissions without drawing unwanted media and regulatory attention was for all the panel banks to collude to suppress as a pack. That is because, on the one hand, a bank that submits LIBORs that are above the pack signals its relative weakness and illiquidity to the media and market. As Barclays acknowledged, a bank submitting too high risked sticking its "head above the parapet," which could get it "shot" off by the financial press. Barclays SOF ¶ 43.[60] On the other hand, a bank that submits LIBORs that are lower than the pack risks drawing unwanted media and regulatory attention.

82. An employee of Defendant UBS told UBS's Thomas Hayes, who the DOJ charged with criminal price-fixing, that he would "not set[] libor 7bp away from the truth" because "***<u>i'll get ubs banned if I do that, no interest in that</u>***."[61] Also, a Defendant bank who acted alone to submit lower-than-accurate LIBOR would risk being reported by other Defendant banks who were (or should have been) competing to appear more creditworthy to the market by submitting truthfully low LIBORs. However, if all the panel banks were colluding to suppress LIBOR, there was less risk that any Defendant would report another Defendant for submitting lower-than-accurate LIBOR.

83. In a June 18, 2008 chat, UBS employees discussed why it was important for LIBOR submissions to neither be too high nor low, but in the middle of the pack:

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[59] Gavin Finch and Elliott Gotkine, "Libor Banks Misstated Rates, Bond at Barclays Says," *Bloomberg*, May 29, 2008.
[60] Barclays agreed that it would not contest the accuracy of the DOJ Statement of Facts ("Barclays DOJ SOF"). DOJ Non-Prosecution Agreement at 1.
[61] Complaint, *U.S. v. Hayes & Darin*, No. 12 Mag 3229 (Dec. 12, 2012), Exhibit 2 (emphasis added).

Trader D:	"...[Senior Manager B] *want us to get in line with the competition by Friday ...*"
Trader Submitter E:	"... *if you are too low you get written about for being too low...if you are too high you get written about for being too high ...* "
Trader D:	"*middle of the pack there is no issue...*"

UBS FSA ¶ 124.

84. Because no one bank would want to stand out as bearing a higher degree of risk than its fellow banks, or as having submitted an artificially low LIBOR, each panel bank shared a powerful incentive to collude with other panel banks to ensure it was not the "odd man out." Because all banks wanted to appear financially healthy during the financial crisis, they had a powerful incentive to collude to suppress their LIBOR submissions as a group.

85. Second, by artificially suppressing LIBOR, the panel banks paid lower interest rates on LIBOR-based financial instruments they sold to investors, including the OTC Plaintiffs, during the Class Period. Illustrating the panel banks' motive to artificially suppress LIBOR, in 2009 Citibank reported it would make $936 million in net interest revenue if rates would fall by 25 bps per quarter over the next year and $1.935 billion if they fell 1% instantaneously. JPMorgan Chase likewise reported significant exposure to interest rates in 2009: The bank stated that if interest rates increased by 1%, it would lose over $500 million. HSBC and Lloyds also estimated they would earn hundreds of millions of additional dollars in 2008-2009 in response to lower interest rates and would lose comparable amounts in response to higher rates. And Deutsche Bank reportedly earned more than $650 million in profit during 2008 from trades tied to LIBOR because LIBOR was low.[62] These banks collectively earned billions in net

[62] Jean Eaglesham, *Bank Made Huge Bet, and Profit, on Libor,* Wall St. J., Jan. 10, 2013, http://online. wsj .com/article/SB10001424127887324442304578231721272636626.html.

revenues between August 2007 and May 2010 from suppressed USD LIBOR.

86. The panel banks thus possessed reputational and financial incentives to manipulate LIBOR—which, as detailed below, they did.

C. The Panel Banks Colluded To Suppress USD LIBOR

87. The most plausible inference from the empirical evidence, discussed in detail below, is that the panel banks conspired to suppress LIBOR between August 2007 and May 2010. For example, the empirical evidence from the Eurodollar Study shows anomalous divergences during this period between the Eurodollar benchmark and LIBOR submissions. Those divergences are unprecedented before and after this period and not explainable by market fundamentals. Before and after this period, LIBOR and the Eurodollar benchmark were very closely correlated. During this period, however, Defendants' LIBOR submissions were, on average, approximately 29.4 basis points lower than the Eurodollar benchmark ("Eurodollar spread"). In addition, Defendants' patterns of divergence from the Eurodollar benchmark were very similar to each other during this period, as every Defendant had an average Eurodollar spread within 6 basis points of each other. As many market participants observed, the panel banks suppressed as a pack during this period. This empirical evidence gives rise to a plausible inference of collusion because all the panel banks were artificially suppressing LIBOR in common but unpredictable ways that did not correspond to the LIBOR definition, or track market fundamentals, even though their submissions were supposed to be confidential.

88. In addition to the empirical evidence showing that the panel banks colluded, there is also ample direct and inferential evidence that the panel banks colluded to suppress LIBOR.

89. During the Class Period, the panel banks subverted the USD LIBOR setting process by submitting daily USD borrowing rate estimates at rates lower than those at which they believed they could borrow. These submissions were in violation of the first BBA LIBOR

panel rule described above.

90. During the Class Period, the panel banks also violated the second panel rule described above by routinely sharing amongst themselves, directly and through cash brokers, their planned daily borrowing cost submissions for the purpose of coordinating their submissions to suppress USD LIBOR.

91. Defendants' collusive suppression of USD LIBOR removed the effects of competition from the primary determinant of price for LIBOR-based instruments, and replaced it with a primary determinant of price that was manipulated by Defendants' collusion.

D. <u>All the Panel Banks Knew That Every Panel Bank Suppressed USD LIBOR</u>

92. Barclays admitted that between August 2007 and January 2009, it often reported suppressed USD LIBOR rates at the direction of its managers. These rates were false because they were lower than what Barclays would have submitted had it honored the definition of LIBOR.

> From approximately August 2007 through at least approximately January 2009, Barclays often submitted inaccurate Dollar LIBORs that under-reported its perception of its borrowing costs and its assessment of where its Dollar LIBOR submission should have been. Certain members of management of Barclays, including senior managers in the treasury department and managers of the money markets desk, directed that the Barclays Dollar LIBOR submitters contribute rates that were nearer to the expected rates of other Contributor Panel banks rather than submitting the proper, higher LIBORs. Barclays Dollar LIBOR submitters, following the direction from certain members of management, submitted rates that they believed would be consistent with the submissions of other Dollar LIBOR Contributor Panel banks, or at least, that would not be too far above the expected rates of other members of the Contributor Panel. Consequently, on some occasions, Barclays submitted rates that were *false* because they were lower than Barclays otherwise would have submitted and contrary to the definition of LIBOR.
>
> Barclays DOJ SOF ¶ 36 (emphasis added).

93. Barclays also admitted that its submitters understood that Barclays was submitting

falsely suppressed USD-LIBOR rates during this period because "Barclays was submitting its LIBOR contributions lower than the rate at which Barclays was borrowing or could have borrowed funds, and lower than the rate at which Barclays should have been submitting its LIBOR contributions." Barclays DOJ SOF ¶ 37.

a. In December 2007, a senior Barclays USD LIBOR submitter emailed his supervisor about submitting a one-month LIBOR lower than he would prefer if he were "given a free hand," and explicitly stated: "My worry is that *we* (both Barclays and the contributor bank panel*)* are being seen to be contributing patently false rates. We are therefore being **dishonest by definition** and are at risk of damaging our reputation in the market and with the regulators." CFTC Order at 22 (emphasis added). In another email, the senior Barclays USD LIBOR submitter wrote: "I will be contributing rates which are nowhere near the clearing rates for unsecured cash and therefore **will not be posting honest prices**." *Id*. at 24 (emphasis added). In May 2008, Barclays did not want to disclose to the FSA that its reported LIBOR rates understated its true borrowing costs for fear that reporting the "honest truth" would be a "can of worms." DOJ SOF ¶ 46 .

b. As the CFTC found, "Barclays knew that accounting for its reputational risk in its determination of LIBOR submissions was not permissible under BBA's definition and criteria."[63] Barclays' LIBOR submitters and their supervisor nonetheless "understood that they were to follow this directive regardless of market conditions or whether their assessment of Barclays' cost of obtaining unsecured funds dictated their submissions to be otherwise."[64] In other words, "Barclays' U.S. Dollar LIBOR submitters knew that, by acting upon senior management's instruction . . . , they were making improper U.S. Dollar LIBOR submissions that

[63] Barclays CFTC Order at 20.
[64] Id.

were management's rates and not the rates that the submitters had determined were the correct rates, *i.e.*, those that reflected Barclays' assessment of its cost of borrowing unsecured funds in the London interbank money market."[65] The CFTC further found that the senior Barclays Treasury managers "frequently discussed with the U.S. Dollar LIBOR submitters and their supervisor the specific rates to be submitted, in order to ensure they were in compliance with the directive."[66] The CFTC observed that those discussions "were memorialized in multiple recorded telephone calls and emails during the more than 18-month financial crisis period."[67]

94. Barclays also knew that the other panel banks, acting as a "pack," were submitting USD LIBOR rates that were too low. Barclays' employees revealed that "***<u>all of the Contributor Panel banks</u>***, including Barclays, were contributing rates that were too low." DOJ SOF ¶ 42 (emphasis added).

95. The FSA similarly concluded that "Barclays believed that the submissions of other contributing banks were inappropriate during the financial crisis." FSA ¶ 117.

a. A Barclays senior compliance officer stated in an internal e-mail to several levels of Barclays' senior management that he had informed the FSA "that Barclays believed that LIBOR submissions by the panel banks were distorted due to market illiquidity; that Barclays had been consistently the highest or one of the two highest submitters but was concerned to go higher given the negative media reporting about Barclays; that Barclays had concerns about the trillions of dollars of derivatives fixed off LIBOR; and that there were 'problematic actions' by some banks."[68] That senior compliance officer did not, however, inform the FSA "that Barclays was making its LIBOR submissions based on considerations of negative market or press

[65] *Id.*
[66] *Id.*
[67] <u>*Id.*</u>
[68] Barclays CFTC Order at 22.

perceptions of Barclays or that its LIBOR submitters' assessments of the appropriate rates for submission were being altered to adhere to the directive to be below 'the parapet.'"[69]

b. On another occasion, following an April 16, 2008 Wall Street Journal article speculating "that panel member banks were making LIBOR submissions lower than what they were actually paying for funds to prevent the market from concluding that the banks were desperate for cash," a senior Barclays Treasury manager informed the BBA "that [Barclays] had not been reporting accurately," although he further noted "Barclays was not the worst offender of the panel bank members."[70]

96. The DOJ also concluded that "During approximately November 2007 through approximately October 2008, certain employees at Barclays sometimes raised concerns with individuals at the BBA, the [FSA], the Bank of England, and the Federal Reserve Bank of New York concerning the diminished liquidity available in the market and their views that the Dollar LIBOR fixes were too low and did not accurately reflect the market."[71] Those employees, the DOJ found, "attempted to find a solution that would allow Barclays to submit honest rates without standing out from other members of the Contributor Panel, and they expressed the view that Barclays could achieve that goal if other banks submitted honest rates."[72] The DOJ noted, however, Barclays' communications to regulators "were not intended and were not understood as disclosures through which Barclays self-reported misconduct to authorities."[73] Indeed, following those communications, "Barclays continued improperly to take concerns about negative publicity into account when making its submissions."[74] Moreover, the DOJ emphasized, "on other

[69] *Id.*
[70] *Id.* at 23.
[71] Barclays DOJ SOF ¶42.
[72] *Id.*
[73] *Id.*
[74] *Id.*

occasions, those employees did not provide full and accurate information during their conversations with these external parties."[75]

97. The CFTC similarly found that UBS's submissions were false:

> A bank's concerns about its reputation, negative market or press reports, or its trading positions and related profits are not legitimate or permissible factors upon which a bank may base its daily benchmark interest rate submissions. Benchmark interest rate submissions convey market information about the costs of borrowing unsecured funds in particular currencies and tenors, the liquidity conditions and stress in the money markets and a bank's, such as UBS's ability to borrow funds in the particular markets. By basing its submissions, in whole or in part, on UBS's trading positions and at times its reputational concerns, UBS knowingly conveyed false, misleading or knowingly inaccurate reports that its submitted rates for LIBOR, Euribor, and Euroyen TIBOR were based on and solely reflected the costs of borrowing unsecured funds in the relevant interbank markets and were truthful and reliable.
>
> UBS CFTC 52.

98. UBS also knew that all banks were artificially suppressing USD LIBOR as a "pack." As UBS admitted and acknowledged corporate responsibility for, "[a]t least some at UBS recognized that during this period, the 'pack' of Contributor Panel banks was not a reliable reference point for the bank's LIBOR submissions." DOJ UBS ¶ 101. As is reflected in a September 22, 2008 electronic chat between an ALM employee[76] and another UBS employee:

[75] *Id.*

[76] ALM refers to the Asset and Liability Management group at UBS. According to the DOJ agreement, ALM "is the part of the Investment Bank Division which managed the bank's liquidity buffer and issuance of new commercial paper and certificates of deposit. Group Treasury provided guidance to ALM on funding issues. The head of ALM worked for the Investment Bank Division." DOJ UBS ¶ 17.

UBS Employee: why is the [Investment Bank] cash curve for USD so much higher than Libor? offered 35bps above libor currently

ALM employee: because the real cash market isn't trading anywhere near Libor . . . Libors currently are even more ficticious than usual

UBS Employee: isn't libor meant to represent the rate at which banks lend to each other?

ALM employee: that's the theory . . . in practise, it's a made up number . . . hence all the critisism it was getting a few months ago[[14]]

UBS Employee: why do banks undervalue it in times like this?

ALM employee: so as to not show where they really pay in case it creates headlines about that bank being desparate for cash . . . I suspect

UBS DOJ ¶101(DOJ citations omitted).

99. On May 21, 2008, a Wall Street Journal reporter asked UBS, by email, why, back in mid-April UBS, UBS had been "paying 12 basis points for [commercial paper] more than it was posting as a Libor quote?" The senior manager heading ALM forwarded a proposed answer to the question to the Group Treasury senior manager in Stamford, stating: "the answer would be 'because ***<u>the whole street was doing the same and because we did not want to be an outlier in the libor fixings, just like everybody else</u>***.'" DOJ ¶ 117 (emphasis added)

100. UBS and Barclays were correct: all other panel banks were submitting USD LIBORs that were too low. And every Defendant knew this, just as UBS and Barclays did.[77]

E. <u>The Panel Banks Suppressed "Within The Pack"</u>

101. The empirical evidence shows that the panel banks suppressed in a pack: they submitted LIBOR rates at similarly suppressed levels and yet diverged dramatically and in unpredictable ways from benchmark rates that tracked market fundamentals.

[77] While the DOJ's agreement with RBS does not discuss USD suppression, RBS's agreement with DOJ "encompasses RBS's submissions for the additional benchmark rates listed in Attachment C," which is held in confidence. RBS DOJ NPA ¶2. In addition, "In April 2010, RBS began an investigation into potential USD LIBOR-related misconduct in the form of potential USD suppression." The results of that investigation have not been published.

102. The Barclays and UBS investigations confirm that the panel banks attempted to, and did, stay "within the pack" of LIBOR submissions – a pack that "stayed low." As Barclays admitted,

> Manager-1 explained that Contributor Panel banks are submitting rates that are too low because "banks are afraid to stick their heads above the parapet and post higher numbers because of what happened to [Barclays] when [Barclays] did. You get shot at." Manager-1 explained his/her view that Barclays was posting higher LIBORs than any other bank, and that other banks "are reluctant to post higher and because no one will get out of the pack, **the pack sort of stays low**."
>
> Barclays DOJ ¶ 43 (November 29, 2007) (emphasis added).[78]

103. UBS issued standing instructions during various times during the Class Period to stay within the middle of the pack of USD LIBOR submissions. For example, "[o]n April 17, 2008, Submitter Advisor-2 – who was tasked with advising the U.S. Dollar submitter each day – sent an email to the U.S. Dollar LIBOR submitter informing him/her that 'the guidance I got from my management with regards to libors is that we should aim to be in the ***middle of the pack***.'" UBS DOJ ¶ 115 (emphasis added). "Immediately after this direction was issued on or about April 17, 2008, UBS's LIBOR submissions were in the middle of the submissions of the Contributor Panel banks for the next several days." *Id.* ¶ __.

104. Later communications within UBS discussing the reasons behind the "middle of the pack" directive revealed that all panel banks were following similar instructions to stay within the middle of the pack. As a UBS employee explained, "***the whole street was doing the same*** and we did not want to be an outlier in the libor fixings, just like everybody else." UBS DOJ ¶ 117 (emphasis added).

[78] In another discussion, the DOJ notes that Manager-1 "did not disclose Barclays's management directive to submit lower LIBORs in order to avoid negative media attention, which directive had resulted in improperly low LIBOR submissions." Barclays DOJ ¶ 44.

105. While UBS may have briefly attempted on June 2, 2008 to move its submissions "closer" to where it was actually obtaining cash in response to media pressure, UBS quickly reversed course and, during the week of June 16, 2008, "a Zurich-based UBS senior manager directed U.S. Dollar LIBOR submitters to lower their submissions over the next three days 'to ***get in line with the competition***' because, by contributing LIBOR submissions closer to CD and CP issuance levels, UBS was becoming an outlier relative to other Contributor Panel banks." UBS DOJ ¶120. Following this instruction, "on June 18, 2008, UBS's 3-month U.S. Dollar LIBOR submissions immediately dropped 5 basis points, to the 'middle of the pack' of the Contributor Panel banks." *Id.* ¶ 121.

106. As UBS admitted, "[f]rom that time, and for approximately the next 10 months, UBS's 3-month U.S. Dollar LIBOR submissions were ***identical*** to the published LIBOR fix, and largely consistent with the published LIBOR fix in the other tenors." UBS DOJ SOF ¶122 (emphasis added). This was the case even though "[d]uring this 10-month period, there were significant disruptions in the financial markets, affecting individual financial institutions in different ways." UBS DOJ SOF ¶ 123.

107. "Communications reflecting this 'middle of the pack' approach [at UBS] to formulating LIBOR submissions continued in late 2008 and early 2009." UBS DOJ SOF ¶124.

108. Barclays also admitted that, during this period, it followed instructions from its managers to stay "within the pack" of submissions from other panel banks:

> According to internal Barclays communications, for certain time periods, Barclays management instructed the Barclays Dollar LIBOR submitters not to be an "outlier" compared to other Contributor Panel banks, even if Barclays contributed the highest rate; Barclays could be "at the top of the pack" but not too far above the next highest contributor. In adopting that approach, certain managers believed that Barclays's submitted rates typically would be in the upper quartile of rates submitted by the Contributor Panel banks and thus excluded from the rates used in the

> calculation of the LIBOR fix. For certain other periods, however, management did not want Barclays to submit a rate higher than other Contributor Panel banks, and instructed the Dollar LIBOR submitters to stay "within the pack" of other members of the Dollar LIBOR Contributor Panel, and to submit rates "in line" with the other contributors. To the extent that those managers had any concerns about Barclays's submissions being used in the calculation of the LIBOR fix, those concerns apparently were outweighed by their priority for Barclays's submissions to be "***<u>within the pack</u>***."
>
> Barclays DOJ SOF ¶37 (emphasis added).

109. On April 27, 2008, a Barclays manager conceded, "***<u>to the extent that, um, the LIBORs have been understated, are we guilty of being part of the pack? You could say we are</u>***." FSA ¶ 131. As one Barclays submitter put it, "just set it where everyone else sets it, we do not want to be standing out." Barclays FSA Final Notice ¶ 123.

110. In late October 2008, for example, "a member of senior management conveyed an instruction to the LIBOR submitters, through their supervisor, that Barclays' U.S. Dollar and Sterling LIBOR submissions needed to be lowered to be within the pack." Barclays CFTC 24. "In emails and other communications, Barclays' submitters continued to indicate into at least mid-2009 that they were still basing their submissions at levels to minimize market or press speculation about Barclays." Barclays CFTC 25.

111. On November 27, 2007, a Barclays manager expressed the view, just as UBS had, that other banks also wanted to stay within the pack: "other banks 'are reluctant to post higher and because no one will get out of the pack, the pack sort of stays low.'" Barclays DOJ ¶ 43.

112. Barclays instructed its employees to follow the directive to stay within the pack on a day-to-day basis. On November 30, 2007, for example, a "senior Barclays Treasury manager" spoke with Barclays' "senior U.S. Dollar LIBOR submitter," who was "seeking guidance on his submissions."[79] During that conversation, the senior Treasury manager "related his understanding that senior management had discussed the issue and directed them to continue

to 'stick within the bounds[,] so no head above [the] parapet.'"[80] The Treasury manager also told the LIBOR submitter "that they would have to deal with the settings, meaning how to make LIBOR submissions per this directive, on 'a day-to-day-basis.'"

113. Even the BBA acknowledged in April 2008 that no panel banks were "clean-clean" and that it understood what would happen to any bank that "moved against the trend of lower submissions."

> At this time, a senior Barclays Treasury manager informed BBA in a telephone call that it had not been reporting accurately, although he noted that Barclays was not the worst offender of the panel bank members. "We're clean, but we're dirty-clean, rather than clean-clean." ***The BBA representative responded, "no one is clean-clean."*** The senior Barclays Treasury manager replied "no, because of the very fact of what happened to us… We were clean .. the market … reacted accordingly. And that's why we stepped away again." The senior Barclays Treasury manager was referencing the market speculation about Barclays' high LIBOR submission in early fall 2007. ***The BBA representative indicated that he understood what happened to any bank that moved against the trend of lower submissions****….*
>
> Barclays did not explain in these calls that it was making its LIBOR submissions pursuant to a management directive and not in accordance with BBA's definition and criteria or consistent with the costs of obtaining unsecured funds in the London interbank money market.

Barclays CFTC p. 23.

F. The Panel Banks Conspired To Suppress As a Pack By Sharing Confidential LIBORs

114. Direct evidence shows that the panel banks' conspiracy to suppress LIBOR as a pack was facilitated by sharing LIBOR bids with each other ***before they were submitted***, in contravention of the LIBOR rules that required the submissions to remain confidential.

115. For example, a November 29, 2007 email shows that Barclays knew, in advance of the submission deadline, the proposed confidential submissions of ***every USD LIBOR panel bank***.

> On 29 November 2007, all the contributing banks' submissions for one month US dollar LIBOR increased by a range of 35 to 48 basis points. Barclays' submission increased from 4.86 on 28 November to 5.3 on 29 November (an increase of 44 basis points). The offer that Barclays saw in the market was 30 basis points higher, at 5.60. Barclays' Submitter had intended to submit a rate of 5.50 on that day. However he was overruled on a conference call during which the submissions were discussed, as a rate of 5.50 was expected to draw negative media attention (***as this would have been 20 basis points above the next highest submission***). Manager E said on the call that ***"it's going to cause a shit storm"***. Barclays therefore submitted a rate of 5.30, which was in line with another contributing bank's submission that day.
>
> Barclays FSA ¶118 (emphasis added).

116. Barclays could not have known in advance that its proposed submission would be "20 basis points above the ***next highest submission***" unless it knew the proposed submissions of ***every other panel bank before those rates were published***. A review of the publicly available 1M LIBOR submissions confirms what is implied by FSA ¶ 118: Barclays had advance knowledge that the "next highest submission" of the other 15 panel banks was going to be 5.30, which is exactly 20 basis points below the 5.50 that Barclays had ***intended to submit that day***.

1 Month USD LIBOR Submissions

Date	BTMU	Barc	BAC	Citi	CS	DBK	HBOS	HSBA	JPM	LlOY	Norin	Rabo	RBC	RBS	UBS	WestLB
11/28/2007	4.82	4.86	4.9	4.83	4.9	4.78	4.82	4.8	4.82	4.82	4.85	4.81	4.815	4.83	4.8	4.82
11/29/2007	5.25	5.3	5.25	5.18	5.25	5.18	5.3	5.2	5.25	5.25	5.23	5.2	5.2	5.18	5.16	5.22

Barclays used its advance knowledge of every bank's confidential submissions to alter its submission to further suppress LIBOR to stay within the pack.

117. The high volatility in LIBOR submissions between November 28 and November 29, 2007 also shows why it would have been impossible for Barclays – or any other panel bank – to stay within the pack without colluding to share confidential LIBOR submissions. The banks could not have predicted the submissions of other panel banks on November 29, 2007 based solely on the previous day's public submissions because submissions moved on average

approximately 40 basis points from the previous day. Nor could they have predicted the submissions of other panel banks on November 29, 2007 based on publicly available information about market fundamentals. The Eurodollar benchmark, which captured changes in market fundamentals, moved much more dramatically between November 28th and November 29th than LIBOR did: the Eurodollar benchmark moved 70 basis points that day (from 4.9 to 5.6), whereas LIBOR only moved 40 basis points (from 4.82 to 5.22). Rather than basing their November 29, 2007 submissions on the LIBOR definition, or on predictions of what other banks would do, a plausible inference is that every panel bank colluded to share pricing information in order to stay low as a pack.

118. Nor was this an isolated event: Barclays' managers issued standing instructions for certain periods not to be too far above the "next highest contributor" (Barclays DOJ SOF ¶ 37) – something that could not be achieved unless Barclays expected that it would continue to have access to the advance, confidential submissions of every other panel bank on an ongoing basis. And the instructions were very precise. According to the CFTC's review of the evidence it collected, "Senior Barclays Treasury managers provided the [LIBOR] submitters with the general guidance that Barclays's submitted rates should be ***<u>within ten basis points</u>*** of the submissions by the other U.S. Dollar panel banks . . . ." Barclays CFTC 20 (emphasis added). Similarly, on April 26, 2008, a senior Barclays treasury manager asked USD submitters to "not sort of be ***<u>ten basis points above the next</u>***" highest submitter. Barclays CFTC p. 23.[79] Submitters could not be expected to stay within 10 basis points of the next highest submitter unless the senior treasury manager expected that Barclays would continue to have access to every Defendant's confidential LIBOR submissions in advance. The Barclays Settlements

[79] Upon hearing this, the submitter told his supervisor that "he thought there was a compliance issue, [but] no internal action was taken to address his concerns." Barclays CFTC p. 23.

indicate other instances when Barclays had advance knowledge of other banks' supposedly secret LIBOR quotes, either directly, through communication with brokers, or both. *E.g.*, FSA Final Notice ¶ 117 ("[B]rokers tell me that [another panel bank] is going to set at 5.15 for both (up 8.5 and 10 from yesterday)" (quoting Barclays email)); Transcript of Telephone Conference between Barclays and Federal Reserve Bank of New York, Oct. 24, 2008 ("[T]hree-month libor is going to come in at 3.53. . . . it's a touch lower than yesterday's but please don't believe it. It's absolute rubbish.").

119. A plausible inference is that the panel banks shared confidential LIBOR submissions in advance in order to enable them to collude to suppress LIBOR. That is what Barclays' did with the information on November 29, 2007. Plaintiffs anticipate that discovery will reveal substantial additional evidence of the advance sharing of LIBOR submissions in service of the conspiracy.

120. Based on the specific information provided by regulators in the UBS settlements regarding the nature and timing of management's directives, a consulting expert was able to test the likelihood that UBS submitters could have complied with management directives to stay within the pack absent collusion with the other panel banks.

121. The consulting expert looked specifically at the period beginning on or about June 18, 2008 and continuing until mid-April 2009. The consulting expert first looked at how often UBS's daily 3-month LIBOR submissions were "in the middle of the pack" during this six month period.

122. The expert then undertook probability analysis to determine how likely it was the UBS LIBOR submitters could have been able to successfully target their submissions "in the middle of the pack" as often as they did absent collusion. To do this, the expert looked at

relevant public information available to the LIBOR submitters at the time they made their submissions at around 11:00 a.m. London time. The consulting expert determined the relevant public information reasonably available to UBS LIBOR submitters to be: (i) prior day 3-month LIBOR submissions from the Panel Banks; and (ii) changes in the Federal Reserve Eurodollar Deposit (FRED) Rate, which would have reflected changes in relevant Market Fundamental from the prior day, and (iii) changes in the opening and closing prices of Eurodollar futures prices from one day prior and from two days prior. *See, e.g.*, ¶¶ 176–177.

123. The expert determined that during the period of June 18, 2008 through April 14, 2009, UBS's LIBOR submitters were highly successful in meeting management's directive. Specifically, over this ten month period, UBS's 3-month LIBOR submissions were at or within the interquartile range (the two middle fourths of Panel Bank submissions that were averaged to calculate each day's LIBOR rates) 99.0% of the time, and were within the interquartile range (*i.e.*, not tied with the 4th lowest or 13th highest submission) 86.7% of the time. Further demonstrating UBS submitters' stunning ability to consistently target the actual published LIBOR rates despite a volatile market, the DOJ found that from June 18, 2008, and continuing for approximately the same 10 month period, UBS's 3-month LIBOR submissions were identical to the published LIBOR fix, and largely consistent with the published LIBOR fix in the other tenors.

124. Using probability analysis, the consulting expert then calculated the likelihood to be ***<u>less than 1%</u>*** that UBS could have achieved this remarkable consistency based on consideration of the prior day's interquartile range LIBOR Panel Bank submissions. The expert further determined that there was also ***<u>a less than 1%</u>*** likelihood that UBS could have achieved its consistent record during this period based on consideration of the prior day's interquartile

range LIBOR Panel Bank submissions and changes in the FRED Rate. The expert also determined that there was also ***a less than 1%*** likelihood that UBS could have achieved its consistent record during this period based on consideration of the prior day's interquartile range LIBOR Panel Bank submissions and changes in the Eurodollar opening or closing prices from either one day prior or from two days prior.

125. As with the expert's conclusions in connection with the Eurodollar analysis above, the duration of, and the degree of successful compliance with management's specific LIBOR quote submission directives relative to where other Panel Banks' suppressed submissions fell on a daily basis further strongly support that the LIBOR suppression was accomplished through the collusive cooperation and agreement among the Panel Banks.

G. The Panel Banks' Collusion to Manipulate LIBOR To Benefit Individual Trading Positions

126. As noted above, at least some panel banks were motivated to participate in the conspiracy to suppress USD LIBOR partly in order to benefit their net trading positions. In addition, the panel banks conspired to manipulate LIBOR currencies between at least January 2007 and June 2010 to benefit their daily trading positions, including by colluding to manipulate USD and Yen LIBOR.

127. Even small shifts in LIBOR settings can have a huge impact on the profitability of the panel banks' LIBOR-Based Instruments. For example, in October 2008, a UBS manager advised that "UBS had trading positions that would cause losses of ***USD 4m per basis point*** if 'libors move higher.'" UBS FSA ¶ 103. Similarly, RBS admitted that "Because of the high value of the notional amounts underlying derivatives transactions tied to Yen and Swiss Franc LIBOR, even very small movements in those rates could have a significant positive impact on the profitability of traders' trading portfolios, and a correspondingly negative impact on their

counterparties' trading positions." RBS DOJ SOF ¶78.

128. Collusion to suppress LIBOR and collusion to manipulate LIBOR to benefit individual trading positions were motivated by precisely the same improper purpose: illegitimately protecting the banks' profitability using the banks' control of LIBOR.

1. RBS

129. In a deferred prosecution filed on February 6, 2013, RBS acknowledged and agreed that the DOJ will file a two-count criminal Information in the United States, alleging "one count of ***price-fixing***, in violation of the Sherman Act, Title 15, United States Code, Section 1." DOJ DPA (emphasis added). As part of that agreement, RBS "admits, accepts, and acknowledges that it is responsible under United States law for the acts of its officers, directors, employees, and agents as charged in the Information, and as set forth in the Statement of Facts." DOJ DPA ¶2.

130. RBS agreed that by colluding to manipulate Yen LIBOR, RBS colluded to fix the price of LIBOR-based instruments because Yen LIBOR is a component of price of LIBOR-based instruments:

> Traders, former traders, and/or submitters at competing financial institutions, including RBS, agreed to coordinate and in fact coordinated with regard to Yen LIBOR submissions, causing the manipulation of the LIBOR reference rate on certain occasions. Because Yen LIBOR was a pricing component of derivatives contracts held by the financial institutions, the traders benefited from this agreement by affecting the profitability of the contracts on particular settlement dates.
>
> RBS DOJ ¶ 82.

131. On April 12, 2013, the DOJ charged RBS with one count of "price-fixing" in violation of Section 1 of the Sherman Act. RBS admitted that it was responsible for the following acts, as charged in the Information

> From at least as early as 2007 through at least 2010, Defendant THE

> ROYAL BANK OF SCOTLAND PLC, through its employees, and its co-conspirators, engaged in a combination and conspiracy in unreasonable restraint of interstate and foreign commerce. The aforesaid combination and conspiracy consisted of an agreement, understanding and concert of action among the Defendant and its co-conspirators, the substantial terms of which were to fix the price of Yen LIBOR-based derivative products by fixing Yen LIBOR, a key price component of the price thereof, on certain occasions.
>
> In violation of Title 15, United States Code, Section 1.

132. RBS also agreed that its Yen LIBOR price-fixing conspiracy lasted from at least as early as February 2007 through 2010:

> From at least as early as February 2007 through 2010, RBS regularly colluded with UBS to request that their respective Yen LIBOR submitters contribute Yen LIBOR submissions to benefit their trading positions. ¶ 43-65.
>
> RBS DOJ SOF ¶43.

Similarly, the FSA found that:

> Between February 2007 and June 2010, RBS, through two of its Derivatives traders, colluded with Panel Banks and Broker Firms in relation to JPY and CHF LIBOR submissions.
>
> RBS FSA ¶ 9.

133. Documents published in the RBS orders and reports issued by various agencies confirm that RBS colluded, or expected that it would be able to collude, with every Yen panel bank:

a. Emails show that RBS colluded with at least 5 different Yen Panel Banks in fixing Yen LIBOR. RBS FSA ¶¶ 59-60, 65-67. For example, on June 6, 2009, a RBS trader (identified as Derivatives Trader B) enlisted a Broker to collude with at least 4 different panel banks to lower LIBORs in several tenors:

Broker A:	*Alright okay, alright, no we've okay just confirming it. We've, so far we've spoke to* [Panel Bank 3]. *We've spoke to a couple of people so we'll see where they come in alright. We've spoke, basically... basically we spoke to* [Panel Bank 3], [Panel Bank 4], [Panel Bank 5], *who else did I speak to?* [Panel Bank 6]. *There's a couple of other people that the boys have a spoke to but as a team we've basically said we want a bit lower so we'll see where they come in alright?*
Derivatives Trader B:	*Cheers.*

(b) As the FSA concluded, RBS engaged in "at least 30 wash trades in order to facilitate corrupt brokerage payments to Broker Firms," in many instances in exchange "for efforts to influence Panel Banks' JPY LIBOR submissions." FSA ¶¶ 63, 65.

(c) RBS also colluded with a sixth bank -- a Swiss Panel Bank - to fix CHF (Swiss Franc) LIBOR.

134. Documents also confirm that, according to RBS, price-fixing of LIBORs was the norm, not the exception, during the financial crisis. For instance, a RBS Submitter "observed to a Broker during the financial crisis that, in the absence of liquidity, 'people are just setting LIBORs to suit their books' and 'it's just where you've got your fixings really….'" RBS FSA ¶71.

135. RBS manipulated USD LIBOR and other LIBOR currencies for profit, at least internally. For example, the FSA found, after reviewing the documents, that RBS "Primary Submitters took into account the impact of LIBOR or RBS's LIBOR submissions on the profitability of transactions in their money market trading books as a factor when making (or directing others to make) RBS's JPY, CHF and USD LIBOR submissions." FSA ¶ 105.

136. "In total, the misconduct involved at least 21 individuals at RBS, at least one of whom was a Manager." FSA ¶ 109.

2. <u>UBS and Thomas Hayes</u>

137. RBS admitted to the Antitrust Division of the Department of Justice that it

colluded regularly with UBS to manipulate Yen LIBOR from at least as early as February 2007 through 2010.

138. Thomas Hayes, who worked at UBS from the spring of 2006 through December 2009, was criminally charged with violating the Sherman Act by conspiring to fix Yen LIBOR, which is a component of price of LIBOR-based instruments:

> In or about May 2009, in the Southern District of New York and elsewhere, TOM ALEXANDER WILLIAM HAYES, the defendant, and his co-conspirators, including an employee at a major financial institution, and others known and unknown, engaged in a combination and conspiracy in unreasonable restraint of interstate and foreign trade and commerce in violation of Section 1 of the Sherman Act. The aforesaid combination and conspiracy consisted of an agreement, understanding, and concert of action among HAYES and his co-conspirators, the substantial terms of which were to fix Yen LIBOR, a key price component of Yen LIBOR-based derivative products.

139. Documents show that, while Mr. Hayes was at UBS, UBS colluded with other Yen panel banks to manipulate Yen LIBOR with great frequency and for enormous profit from at least as early as January 2007 through at least September 2009. According to CFTC's review of the documents:

> The [UBS] Senior Yen Trader conducted his extensive, systematic course of unlawful conduct to manipulate Yen LIBOR and periodically, Euroyen TIBOR, from shortly after he joined UBS in early July 2006 until his departure in the fall of 2009, following a dispute with UBS over his compensation.
>
> CFTC 11.
>
> As with his internal requests, the Senior Yen Trader began coordinating regularly with derivatives traders at other panel banks by January 2007. The Senior Yen Trader coordinated with traders primarily at four panel banks whom he knew or had worked with previously.
>
> CFTC 17

140. The CFTC gave the following summary of a small sampling of the numerous communications between Mr. Hayes and other Yen Panel banks.

As with his internal requests, the Senior Yen Trader began coordinating regularly with derivatives traders at other panel banks by January 2007. The Senior Yen Trader coordinated with traders primarily at four panel banks whom he knew or had worked with previously. The Senior Yen Trader, or others acting on his behalf, made about 100 requests of traders at the other panel banks.

The Senior Yen Trader generally made requests of the other banks' traders, who regularly agreed to pass his requests to their Yen LIBOR or, on occasion, Euroyen TIBOR submitters. The Senior Yen Trader also made requests directly of the submitter of at least one bank. The other traders often conveyed success with comments such as, "done" and "we normally do well for u!!!"

For their own manipulative purposes of benefiting their derivatives trading positions, certain of the derivatives traders at the other banks sought reciprocating assistance from the Senior Yen Trader to make requests on their behalf to UBS's submitters. The Senior Yen Trader readily agreed to help the other traders. In fact, he often encouraged them to ask for help as a way to curry favor and ensure his requests were accommodated.

The following small sampling of the numerous communications between the Senior Yen Trader and derivatives traders at the other panel banks reveal:

- descriptions of the Senior Yen trader's strategy and his success in keeping rates "artificially high;
- how, as with the internal requests, the Senior Yen Trader pressed traders at the other banks for assistance particularly on key fixing dates around the IMM dates or the turn of the calendar year;
- how routine the requests were and how the traders believed that LIBOR was vulnerable to manipulation at their whim and for their benefit;
- that the requests covered a number of days of LIBOR submissions at times, such that one request could result in multiple days of false LIBOR submissions potentially affecting the fixing for the same period;
- the pressure the Senior Yen Trader felt to keep making money for UBS; and
- that the traders believed that they succeeded at times.

CFTC 17-18

141. Within the collection of documents reviewed by the FSA, Mr. Hayes was involved in a high number of written requests evidencing collusion with other panel banks:

> The Senior Yen Trader and others at UBS made approximately 2,000 written requests of UBS's Trader-Submitters, traders at other panel banks and interdealer brokers to try to achieve their manipulative goals. The written requests of the Senior Yen Trader and others occurred on approximately 570 trading/reporting days, mostly between late 2006 and late 2009, which is approximately 75% of the time.

142. UBS, through Mr. Hayes, colluded with other Yen LIBOR panel banks to suppress Yen LIBOR to benefit Mr. Hayes's trading positions. Mr. Hayes colluded either directly with other Yen LIBOR panel banks or through intermediaries such as interdealer brokers. For example:

a. On Feb. 25, 2009, Mr. Hayes asked an employee at an interdealer broker, "Broker B"[80] for "low 1m and 3m," saying "we must keep 3m down" and "try for low on all of em." The broker responded: "ok ill do my best for those tday."[81]

b. On Mar. 6, 2007, an employee at a bank identified in the Hayes-Darin Complaint as "a global financial services company headquartered in Edinburgh. Scotland" ("Trader C") requested that Mr. Hayes take steps to ensure low UBS Yen LIBOR submissions for all maturities: "can u go fr low everything plse?" Mr. Hayes responded that he would make the request but he personally needed a high 3-month Yen LIBOR fixing. Mr. Hayes then made a request to a UBS LIBOR submitter for low 1-month and 6-month Yen LIBOR submissions "hi pls don't forget low 1m and 6m!" The Hayes-Darin complaint notes that "[t]hat day, compared to the previous day, UBS's 1-month and 6-month Yen LIBOR submissions dropped by 2.0 and

[80] The Hayes-Darin Complaint identifies "Broker B" as "a broker employed at Brokerage Firm B, "a London-based, inter-dealer broker that, in exchange for commissions or other fees, matched buyers and sellers in various financial products, enabling them to engage in transactions." Hayes-Darin Cmplt. at 5.
[81] Hayes-Darin Cmplt., Exh. 9.

2.5 basis points, respectively, consistent with Trader C's request to Hayes." Hayes-Darin Cmplt. at 22.

c. Between about Apr. 19 and Apr. 24, 2007, Mr. Hayes requested low Yen LIBOR submissions from Trader C.

i. On Apr. 19, 2007, Mr. Hayes asked Trader C "can you do me a favour and ask your cash guys for a low 3m" because Mr. Hayes had "some huge huge fixes." Trader C responded "will do my best I am pretty flat at the moment" "so don't really care."[82] The Hayes-Darin Complaint notes: "That same day, Bank C's 3-month Yen LIBOR submission was 0.65 percent, down from 0.67 percent the previous day." Hayes-Darin Cmplt at 22–23.

ii. The next day, Mr. Hayes thanked Trader C: "hi mate thanks for keeping 3m low y/day wd really appreciate it if u cld try for the same over the next few days . . . ."[83] Later that day, Mr. Hayes asked Trader C again: "i know i only talk to you when I need something but if you could ask your guys to keep 3m low wd be massive help as long as it doesn't interfere with your stuff."[84] Mr. Hayes followed up later, asking Trader C "mate did you manage to spk to your cash boys?" Trader C responded "yes u owe me they are going 68 and 71" Mr. Hayes responded "thx mate yes i do . . . in fact i owe you big time." Then later, after learning that Bank C

[82] Hayes-Darin Cmplt., Exh. 15.
[83] Hayes-Darin Cmplt., Exh.15.
[84] Hayes-Darin Cmplt., Exh. 15

had made a 3-month Yen LIBOR submission of 0.64 percent that day. Mr. Hayes exclaimed: "mater they set 64! . . . that's beyond the call of duty!"[85]

iii. On Apr. 24, 2007, Mr. Hayes wrote "Trader C": "hello mate thanks for the help on libors, if you cld ask for a low 3m for one last day wd be big help"[86]

iv. The Hayes-Darin Complaint notes: "After three consecutive trading days at 0.64 percent, Bank C's 3-month Yen LIBOR submission increased to 0.65 percent the following day, on or about Wednesday, Apr. 25, 2007." Hayes-Darin Cmplt. at 23.

143. Further, after Mr. Hayes left UBS and started working with "Bank D," which the Hayes-Darin Complaint identifies as "a global financial services company headquartered in New York, New York" (Hayes-Darin Cmplt. at 5)[87], Mr. Hayes continued to collude to manipulate Yen LIBOR to benefit his trading positions, for example:

a. On May 12, 2010, Mr. Hayes told a rate submitter at UBS: "libors are going down tonight" "because i am going to put some pressure on people."[88]

b. Between Mar. 3 and 4, 2010, Mr. Hayes attempted to influence Bank C's Yen LIBOR submissions.

i. Mr. Hayes told a broker on Mar. 3, 2010, "i really need a low 3m

[85] Hayes-Darin Cmplt., Exh. 15.
[86] Hayes-Darin Cmplt, Exh. 15.
[87] The Hayes-Darin Complaint notes that "From in or about December 2009 through in or about September 2010, after leaving UBS, HAYES was employed as a senior Yen swaps trader at Bank D in Tokyo." Hayes-Darin Cmplt. at 6. The *Wall Street Journal* identified Defendant Citigroup as Mr. Hayes' employer immediately after Defendant UBS. David Enrich, "Rate-Rig Spotlight Falls on 'Rain Man'," *Wall Street Journal*, Feb. 8, 2013.
[88] Hayes-Darin Cmplt. Exh. 17.

jpy libor into the imm [the International Monetary Market date, which occurs quarterly on the third Wednesday of March, June, September, and December]," and "any favours you can get with the due at [Bank C] would be much appreciated" "even if he on;ly move 3m down 1bp." The broker said "i'll give him a nudge later, see what he can do" and then asked the Bank C submitter: "u see 3m jpy libor going anywhere btween now and imm?" noting "we have a mutual friend who'd love to see it go down, no chance at all?" The Bank C submitter said "haha TH by chance," and the broker responded "shhh."[89]

ii. The Hayes-Darin Complaint notes that, the next day, Bank C's 3-month Yen LIBOR submission decreased by one basis point compared to the previous day. Hayes-Darin Cmplt. at 26. After the LIBOR submissions were posted, the Bank C LIBOR submitter reported back to the broker: "Libor lower ;)," and the broker responded "good work!!!!"[90]

144. The UBS Japanese unit where Mr. Hayes worked pled guilty to U.S. fraud charges relating to manipulation of Yen LIBOR.

145. Mr. Hayes enlisted the help of brokers to collude, or attempt to collude, with a large number of panel banks –on one occasion, a plausible inference is that Mr. Hayes asked a broker to contact every Yen panel bank to attempt to collude with them. Reaching out to brokers to influence other banks' submissions was a common practice at UBS:

[89] Hayes-Darin Cmplt., Exh. 18.
[90] Hayes-Darin Cmplt., Exh. 18.

> During the Relevant Period [i.e., January 1, 2005 through December 31, 2010], the UBS Traders (one of whom was a Manager) were directly involved in making more than 1000 documented requests to 11 Brokers at six Broker Firms" to "attempt to influence the JPY LIBOR submissions of other banks."
>
> FSA ¶ 13.

146. Mr. Hayes, in particular, would often speak to brokers to enlist their help in colluding with other Yen panel banks. On March 31, 2009, for example, UBS admitted that Trader-1 (identified in the press as Mr. Hayes)[91] "**asked Broker C to help influence 9 of the 16 banks** by convincing them to lower their LIBOR submissions from the previous day, thus lowering the resulting 1-month and 3-month Yen LIBOR fix."

Trader-1:	mate we have to get 1m and 3m down . . . 1m barely fell yesterday . . . real important
Broker-C:	yeah ok
Trader-1:	banks to have a go w in 1m are
Trader-1:	[Bank-F]
Trader-1:	[Bank-G]
Trader-1:	[Bank-H]
Trader-1:	[Bank-E]
Trader-1:	[Bank-I]
Trader-1:	[Bank-C]
Trader-1:	[Bank-A]
Trader-1:	[Bank-J]
Trader-1:	and [Bank-K]
Trader-1:	pls
Broker-C:	got it mate

147. After September 2009, "UBS Yen Trader 2 also reached out for help to Derivatives Broker B1, who similarly reassured him that ***<u>he regularly spoke to at least seven</u>***

[91] The CFTC recounts this same conversation, and refers to Trader-1 as "Senior Yen Trader." CFTC 25-26. A press report identifies the Senior Yen Trader as Mr. Hayes. *See* http://online.wsj.com/article/SB10001424127887324445904578285810706107442.html

other panel bank submitters and he would try to help Yen Trader 2, if he needed the help." UBS CFTC 37.

148. The breadth and scope of the conspiracy is illustrated by what the CFTC and Mr. Hayes referred to as the "Turn Campaign."

> The Turn Campaign commenced in early June 2009. The Senior Yen Trader's derivatives positions tied to six-month Yen LIBOR were due to reset or mature on June 29, 2009 and would benefit from a high six-month Yen LIBOR. A single basis point move in Yen LIBOR was worth approximately $2 million to him. The Senior Yen Trader coordinated with the UBS Yen Trader-Submitter I, the primary four brokers he used, and his friend, the Trader-Submitter at Yen Bank F, to try to keep six-month Yen LIBOR high.
>
> CFTC 29.

149. To ensure that submissions moved in the right direction on June 29, 2009, Mr. Hayes persuaded a broker to approach ***every panel bank*** to seek their help in raising Yen LIBOR that day:

> In an electronic chat on 29 June 2009, Trader A informed Broker A of the rates that UBS and Panel Bank 2 would submit for six month JPY LIBOR. ***Trader A instructed Broker A what six month JPY LIBOR submissions he wanted from every Panel Bank***, going through them one by one. Trader A told Broker A "*.. . do your best and i'll sort u out*". ***Trader A stressed to Broker A that it was crucial that he approached the Panel Banks***, saying *"v v v important pls try extra extra hard mate"*. Broker A confirmed he would try hard to assist.
>
> UBS FSA ¶ 80.b.

150. While spoof bids were sometimes contemplated,[92] Mr. Hayes expected the broker to try to persuade every bank to collude to submit higher LIBOR that day. Mr Hayes asked the broker to "***contact each panel bank***" and "***make sure [the banks] all know its the turn*** [i.e., the

[92] The CFTC gives the following description of spoofing the market: "The Senior Yen Trader also asked certain brokers to post false bids and offers for cash trades to further disseminate false pricing information to the market and other Yen panel banks and thereby benefit his positions. This is sometimes known as 'spoofing the market.'" CFTC 26.

day when Mr. Hayes could make a lot of money from a move in LIBOR submissions]." UBS CFTC 32.[93] A plausible inference is that Mr. Hayes reasonably expected that he could earn the collusive cooperation from each and every panel bank. Although the Yen LIBOR fixing had been dropping slowly over the month of June 2009, 7 panel banks reversed course on June 29, 2009 and placed higher submissions that were consistent with Mr. Hayes' requests.

151. In 2009, Citibank wooed Mr. Hayes from UBS. According to a press report, "[w]hen Citigroup in 2009 sought to lure [Mr. Hayes] away from UBS with a $5 million job offer, some at UBS fought to keep Mr. Hayes by telling UBS executives of his ability to tap contacts who could nudge Libor up or down."[94] According to the same press report, "After Citigroup offered Mr. Hayes more than double the nearly $2 million he was earning at UBS, his UBS boss, Michael Pieri, lobbied a senior UBS executive to counter with a big bonus, according to people familiar with the offer. Emails released by the Justice Department show Mr. Hayes's boss cited the trader's 'strong connections with Libor setters in London. This information is invaluable for the derivatives books.'"

152. After an investigation into Mr. Hayes' conduct, which involved several banks, he was eventually terminated. In a text message to the press, Mr. Hayes said that "this goes much much higher than me." His close friend told the press that "[t]rying to rig Libor 'was common industry practice.'"

153. In December 2012, UBS Securities Japan Co., Ltd. ("UBSSJ"), the entity where Mr. Hayes worked, agreed to plead guilty to one count of wire fraud (18 U.S.C. § 1343) for secretly manipulating Yen LIBOR and TIBOR. UBSSJ admitted in its plea that false and

[93] The broker with whom Mr. Hayes was speaking agreed that he need to remind the other banks, saying: "yeah thats needed bevcasuse sometimes poepel forget and set them the same ..."
[94] http://online.wsj.com/article/SB10001424127887324445904578285810706107442.html

misleading LIBOR submissions were "material" from the perspective of counterparties to financial transactions.

3. Barclays

154. Barclays admitted that it colluded to manipulate LIBOR submissions dating back to August 2005:

> From at least approximately August 2005 through at least approximately May 2008, certain Barclays swaps traders communicated with swaps traders at other Contributor Panel banks and other financial institutions about requesting LIBOR and EURIBOR contributions that would be favorable to the trading positions of the Barclays swaps traders and/or their counterparts at other financial institutions.
>
> DOJ SOF ¶ 23

155. The FSA found direct evidence that Barclays attempted to collude on USD LIBOR and Euribor submissions between at least February 2006 and October 2007:

> Between February 2006 and October 2007, ***Barclays' Derivatives Traders made at least 63 requests to external traders with the aim that those traders would pass on the requests for EURIBOR and US dollar LIBOR submissions to their banks' submitters. 56 of those requests related to EURIBOR submissions. Five Derivatives Traders made the requests to external traders.***
>
> Barclays FSA ¶ 89.

156. The Barclays Settlements do not identify the other banks who participated in the agreement, but at least some were members of the USD LIBOR panel. *See id* ¶¶ 23–24; FSA Final Notice ¶ 82; CFTC Order at 28.

157. There is direct evidence that Barclays colluded with another USD LIBOR panel bank to collude to manipulate USD LIBOR, in order to benefit Barclays' trading positions.

> On 28 February 2007, Trader B made a request to an external trader in relation to three month US dollar LIBOR: "*duuuude ... whats up with ur guys 34.5 3m fix ... tell him to get it up!!*" the external trader responded "*ill talk to him right away*".

Barclays FSA ¶ 91.

158. Similarly, another trader from an unidentified financial institution requested that Barclays set its LIBOR quote low: "I know I'm asking for much, but ONLY if u guys care, a low 3m libor would be great…anywhere below 5.35…thanks dude." DOJ SOF ¶¶ 27.

H. The Global Conspiracy to Manipulate Yen LIBOR and USD LIBOR

The conspiracy to manipulate Yen and USD LIBOR to benefit the banks' bottom lines and profitability, whether to benefit trading positions directly or to mask illiquidity, is part of the same global conspiracy to manipulate LIBOR settings for the benefit of the Defendant banks.

159. There is significant overlap of persons and entities involved in the Yen and USD conspiracy. 13 banks were involved in conspiring to manipulate both USD and Yen LIBOR. Many of the same individuals were involved in manipulating both currencies, including in some instances common managerial oversight of manipulating both currencies.

a. At UBS, the same managers oversaw and knew about the conspiracy to manipulate Yen and USD LIBOR. As set forth above, on August 9, 2007, the ALM global head emailed a senior manager in Group Treasury, "the manager of the derivatives trading desk that submitted the majority of UBS's LIBOR contributions." The email stated:

> it is highly advisable to err on the low side with fixings for the time being to protect our franchise in these sensitive markets. Fixing risk and [profit and loss] thereof is secondary priority for now.

UBS DOJ SOF ¶105.

A footnote indicates that "the email's reference to 'fixing risk' and profit and loss reflect an awareness that others at UBS were manipulating LIBOR to benefit trading positions, as discussed above" – that is, the Yen LIBOR collusion. *Id.*

b. At RBS, in some instances the same people were involved in manipulating Yen and USD LIBORs, as they held positions that required both USD and Yen LIBORs to move in particular directions. For example, on August 17, 2007, two RBS traders discussed their planned manipulation of both USD and Yen LIBORs: "so on Monday, usd libor will drop 5bps ..but jpy [LIBOR] will only follow suit a few days later." RBS CFTC 17.

c. Other individuals were involved in both USD and Yen collusion. For example, when Mr. Hayes asked a broker to speak to someone about Yen LIBOR collusion, the broker noted: "[Yen Bank K] rite i know him he speak to my dolla desk thats where r orders come from ill have a word with him amnd ask to get it up ok mate." CFTC 32.

160. Market participants commonly expressed the view that the collusive manipulation of LIBOR existed across all conspiracies.

a. In August 2007, a senior RBS trader of Yen LIBOR told one of his colleagues that LIBOR is a "cartel now in London." RBS CFTC Order at 14.

b. . According to the Singapore lawsuit, Todd Morakis, who was the managing director at RBS, "orally confirmed to [Tan] round October [2011] that 'the practice of requesting to change the rate Libor is common in every rate setting environment in the banking industry.'"

c. A RBS Submitter "observed to a Broker during the financial crisis that, in the absence of liquidity, "people are just setting LIBORs to suit their books" and "it's just where you've got your fixings really…." RBS FSA ¶ 73.

d. Johnny Cameron, the former Chairman of Global Banking and Markets at RBS Group, characterized the LIBOR manipulation efforts as "a cartel of people across a number of banks who felt they could fix it." (Parliamentary Commission on Banking Standards,

Feb. 11, 2013; Testimony of Johnny Cameron.).

161. The time periods of the collusion overlapped. The Yen LIBOR collusion persisted through the entire period of the USD LIBOR collusion.

162. The conspirators used similar means to collude, including by sharing advance confidential pricing information.

a. For example, "Trader B of the Cooperating Party communicated with an IRD trader at Citi. They discussed their trading positions, advance[] knowledge of Yen LIBOR submissions by their banks and others, and aligned their trading positions. They also acknowledged efforts to get their banks to submit the rates they wanted." UBS SOF ¶176.

b. In the case of at least one bank, the instruction to suppress USD LIBOR extended to all currencies. For example, "in 2008, UBS Group Treasury instituted a policy of submitting LIBORs for all currencies, including Swiss Franc, in the middle of the pack of other banks' expected LIBOR submissions." UBS DOJ SOF ¶129.

163. In many instances, the same individuals at banks oversaw the submission process for multiple currencies.

a. At Barclays, "Barclays' senior U.S. Dollar LIBOR submitter also had oversight responsibility for the submission of Barclays' Yen LIBOR which was handled daily by other submitters." CFTC p. 7, n. 7. And "Barclays' employees on its money markets desk in London have been responsible for contributing Barclays's Dollar, Sterling, and Yen LIBOR and its EURIBOR submissions ("submitters").

b. At RBS, "[o]ne money market trader was primarily responsible for making both the Yen and Swiss Franc LIBOR submissions." CFTC at 5.

164. Bob Diamond, the former head of Barclays, told the British Parliament the day

after he stepped down last year. "There is an industry-wide problem coming out now."

165. To the extent that panel banks suppressed LIBOR submissions for other currencies, but engaged in some upward manipulation of that same currency on individual days to benefit their trading positions during the same period, there is no inconsistency: movements upward to benefit individual trading positions were often a few basis points, whereas the systemic suppression was a much larger scale. For instance, the day after the ALM global head's dictate, UBS's USD LIBOR submission plummeted ***50 basis points***. But in every event, manipulation of LIBOR was done for the same reason—to promote the profitability of the banks at the expense of their customers, the BBA's rules, and the general public.

166. At the very least, for the foregoing reasons, the conspiracy to manipulate Yen LIBOR is highly probative of the conspiracy to suppress USD LIBOR.

I. Independent Analyses By Plaintiffs' Consulting Experts Strongly Indicate the Panel Banks Artificially Suppressed LIBOR During The Class Period.

167. The consulting experts in these coordinated proceedings have measured LIBOR against other recognized benchmarks for determining banks' borrowing costs. Employing well-reasoned methodologies, these experts have demonstrated that the panel banks artificially suppressed LIBOR during the Class Period. The experts' common conclusion is clear: During the Class Period, LIBOR did not appropriately correspond with other measures of the panel banks' borrowing costs, as indicated by: (i) the difference between the panel banks' respective LIBOR quotes and their probabilities of default, and (ii) the spread between LIBOR and Eurodollar Deposit rates.

168. Additional independent expert analysis performed in connection with these proceedings indicates Libor suppression. At one date during the Class Period, when the BBA announced it would investigate the reporting of LIBOR, members of the LIBOR panel increased

their rates in unison despite the lack of any market reason. Logically, the panel banks collectively feared that their LIBOR suppression would be uncovered. Bolstering this point is that since October 2011, when the European Commission raided most or all of the panel banks in connection with the LIBOR probe, reported LIBOR has returned to its historic norm compared with the overall Eurodollar deposit market."

1. **An Independent Analysis By Consulting Experts—Showing The Discrepancy Between the Panel Banks' LIBOR Quotes And Their Respective Probabilities Of Default—Provides Strong Evidence of LIBOR Suppression During The Class Period.**

169. Assessing the likelihood that LIBOR was suppressed during the Class Period, the Plaintiffs' expert consultants compared USD-LIBOR panel members' quotes from 2007 through 2008 to the daily default probability estimates for each of those banks—as determined, and updated daily for each maturity (term), by Kamakura Risk Information Services ("KRIS").[95] The study focused on identifying any periods of severe discrepancy between each bank's probabilities of default ("PDs") and the LIBOR quotes the bank submitted to the BBA.

170. The KRIS reduced-form model estimates each bank's default risk on a daily basis by analyzing each bank's equity and bond prices, accounting information, and general economic conditions, such as the level of interest rates, unemployment rates, inflation rates, etc. On its website, KRIS states it "provides a full term structure of default for both corporate and sovereign credit names based upon a multiple models approach" and its default probabilities "are updated daily and cover more than 29,000 companies in 36 countries."[96]

171. PD provides a measure of a bank's credit (default) risk exposure, essentially the likelihood that the bank will default within a specified time period. PD can be estimated using

[95] KRIS did not have PDs for Defendants WestLB, Rabobank, or Norinchukin, because those companies were not publicly traded. This PD analysis therefore does not include those banks.
[96] *See* http://www.kris-online.com/, last accessed on April 23, 2012.

statistical models, whereas LIBOR is a rate of return required by investors lending short-term funds to the bank. A finding of a statistically significant negative correlation coefficient between daily LIBOR quotes and PDs for a given bank over a given term period violates the fundamental relationship between risk and return that is the cornerstone of finance. That is, investors require a higher required rate of return as a premium for taking on additional risk exposure. This results in a positive relationship (correlation) between risk and return. An increase in the bank's PD indicates that the risk of default has increased, thereby causing investors to require a higher rate of return for loans to the bank—which should correspond with a higher LIBOR quote.

172. Accordingly, a finding of a statistically significant negative coefficient (of any size) between a bank's daily LIBOR quotes and its PDs shows that increases in PDs correspond with decreases in LIBOR quotes—which violates fundamental finance theory. This would indicate that banks are suppressing their LIBOR quotes to avoid revealing the higher rates that reflect their true (higher) probabilities of default. In other words, any finding of negative, statistically significant correlation coefficients between a bank's PDs and its LIBOR quotes suggests LIBOR suppression by the bank over the analysis period.

173. The magnitude of the correlation coefficient is impacted by the volatility of both PD and LIBOR for each bank during the time period. Thus, for example, if a bank has high volatility in its PDs, the absolute value of the correlation coefficient will tend to be lower (*i.e.*, less negative) as compared to an identical bank with low PD volatility. However, both may be equally engaged in LIBOR suppression if their correlation coefficients are statistically significant and negative.

174. The Plaintiffs' consulting experts used the KRIS database to test whether, for the period under study, each bank's daily sealed LIBOR quote correlates with the bank's estimated

PD that day for the same maturity term (provided by KRIS). For example, the consultants examined the correlation between Bank of America's sealed quote for three-month LIBOR on each date with the three-month PD for Bank of America, as provided by the KRIS database on that same day. As explained above, standard finance theory implies that a positive correlation between a bank's PD and its LIBOR quote should exist—*i.e.*, as the bank's default risk (PD) increases, its borrowing rate (LIBOR quote) should increase, and *vice versa*. That is, using the above example, standard finance theory predicts a positive correlation between Bank of America's three-month PD and its three-month LIBOR quote. A finding of either a zero or negative correlation between a bank's PD and its LIBOR quote indicates the latter does not reflect the bank's default-risk probability, which evidences LIBOR suppression. A negative correlation means the two values have an inverse relationship; as one goes up, the other tends to go down. A statistically significant negative correlation between a bank's LIBOR quote and its PD is consistent with the bank's reducing its LIBOR quote in order to mask its higher risk exposure during a period of financial crisis, such as during the 2007-2008 period. By submitting an artificially low LIBOR quote, the bank sends a false signal that it is less risky than it truly is.

175. The Plaintiffs' consulting experts found suppression over the 2007-2008 period for one-month, three-month, six-month, and 12-month LIBOR.

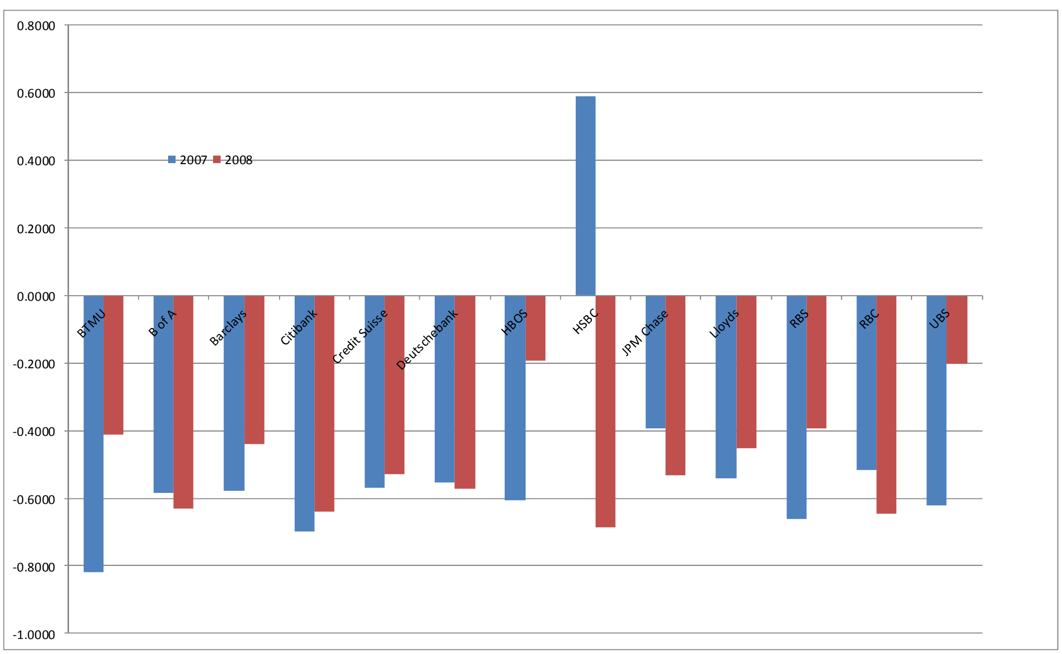
176. The LIBOR quotes for all the reporting banks (except HSBC) during 2007 were *negatively correlated* with their daily updated PDs (for the same maturity term) to a statistically significant degree. For example, the correlation between Bank of America's daily LIBOR quotes and its daily PDs, for example, was negative and statistically significant at a very high level for the one-month, three-month, six-month and 12-month terms, *i.e.*, between -0.5857 and -

0.6093.[97] In other words, the data indicate that, contrary to fundamental finance theory, the higher a panel bank's PD was, the *lower* its LIBOR quote was.

177. Performing the same analysis with respect to the LIBOR panel banks' daily LIBOR quotes and PDs during 2008, the Plaintiffs' expert consultants found that for all of the banks, the submitted LIBOR quotes were negatively correlated with their PDs at the one-month and three-month maturities. Indeed, all of the banks were submitting unduly low LIBOR quotes at all maturities from August 9, 2007 until September 12, 2008, with only one exception: from September 15 through December 31, 2008, the period following the Lehman bankruptcy.

178. The following graphs illustrate the findings of this expert analysis—which demonstrates a striking negative correlation between USD-LIBOR panel banks' LIBOR quotes and PDs during 2007 and 2008, indicating they severely depressed LIBOR during that time.

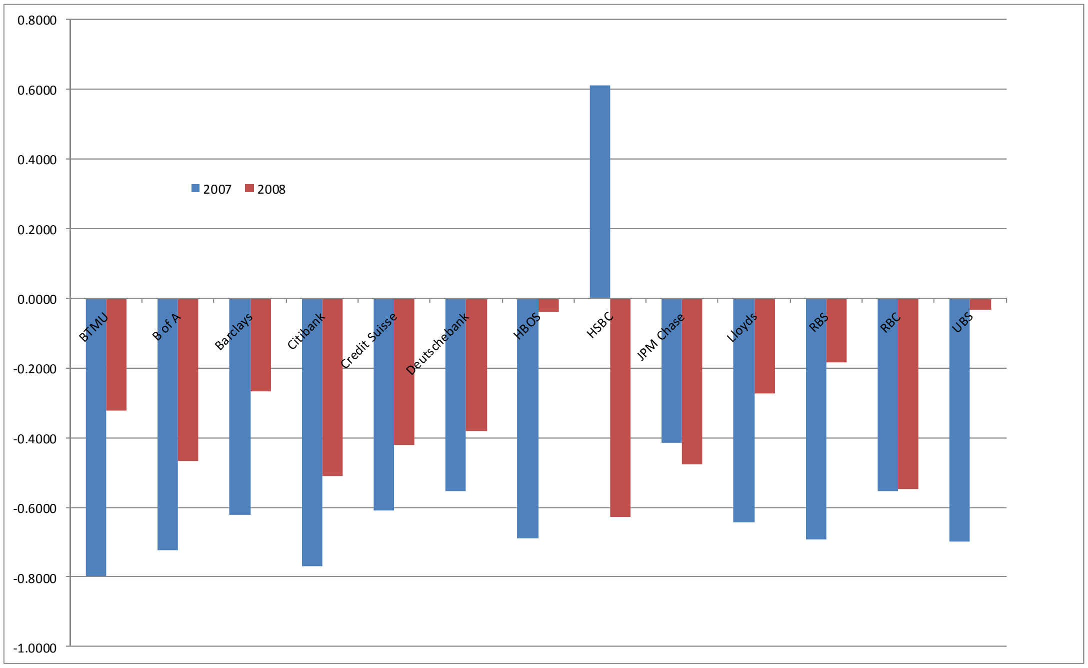
Graph 1: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), One-Month Term



[97] Correlation coefficients range from a value of -1 to 1. A correlation coefficient of -0.50, for example, would imply that a 1% increase in PD would result in a 50-basis point decline in the bank's LIBOR quote.

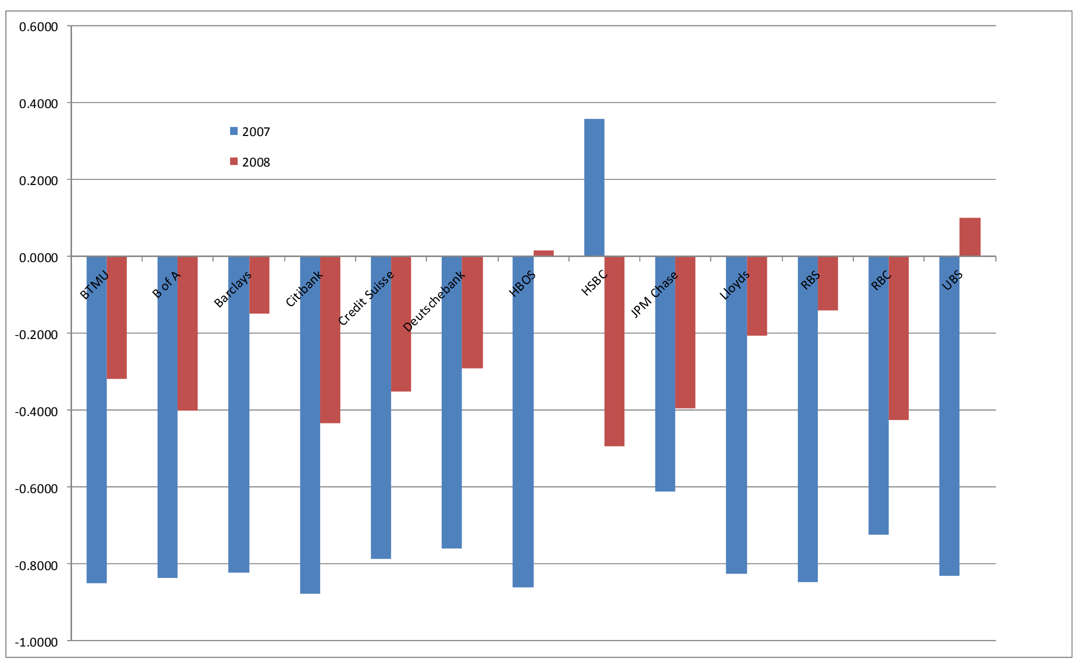
(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 2: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), Three-Month Term



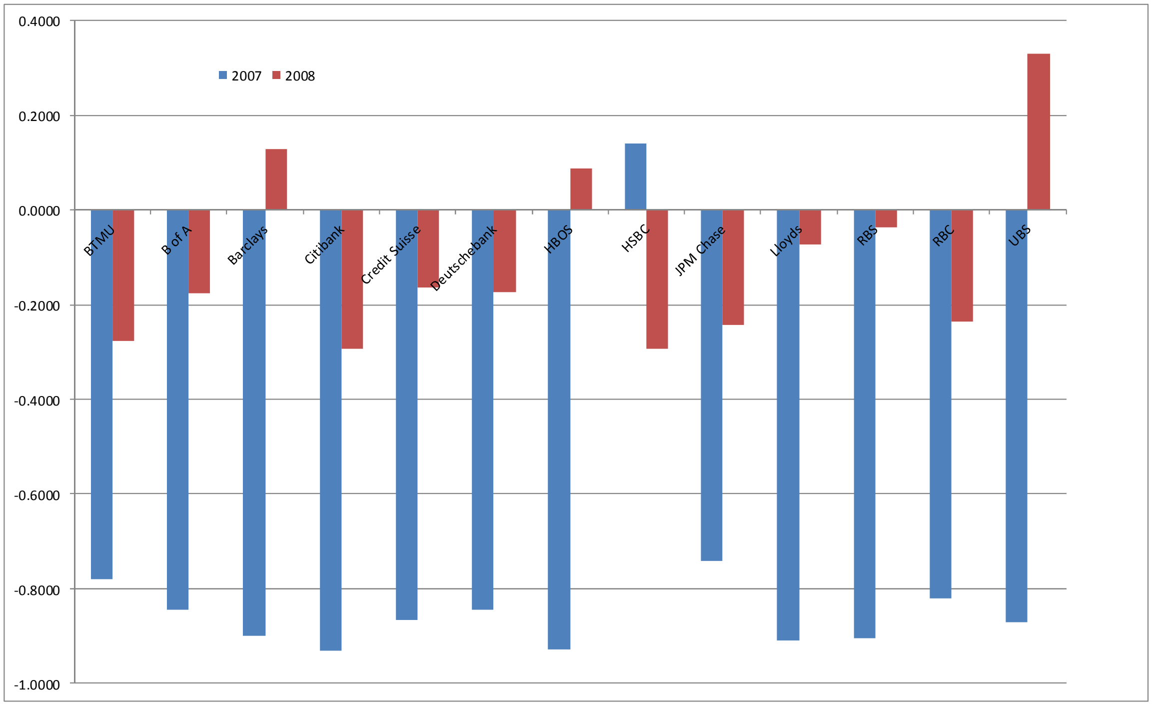
(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 3: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), Six-Month Term



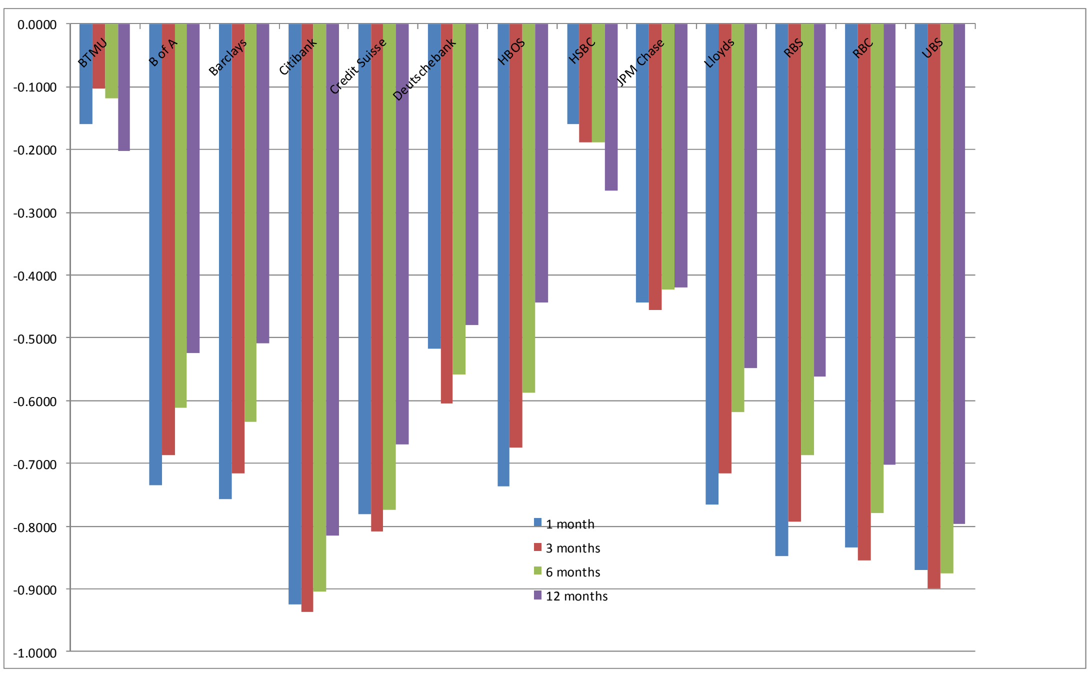
(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 4: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), Twelve-Month Term



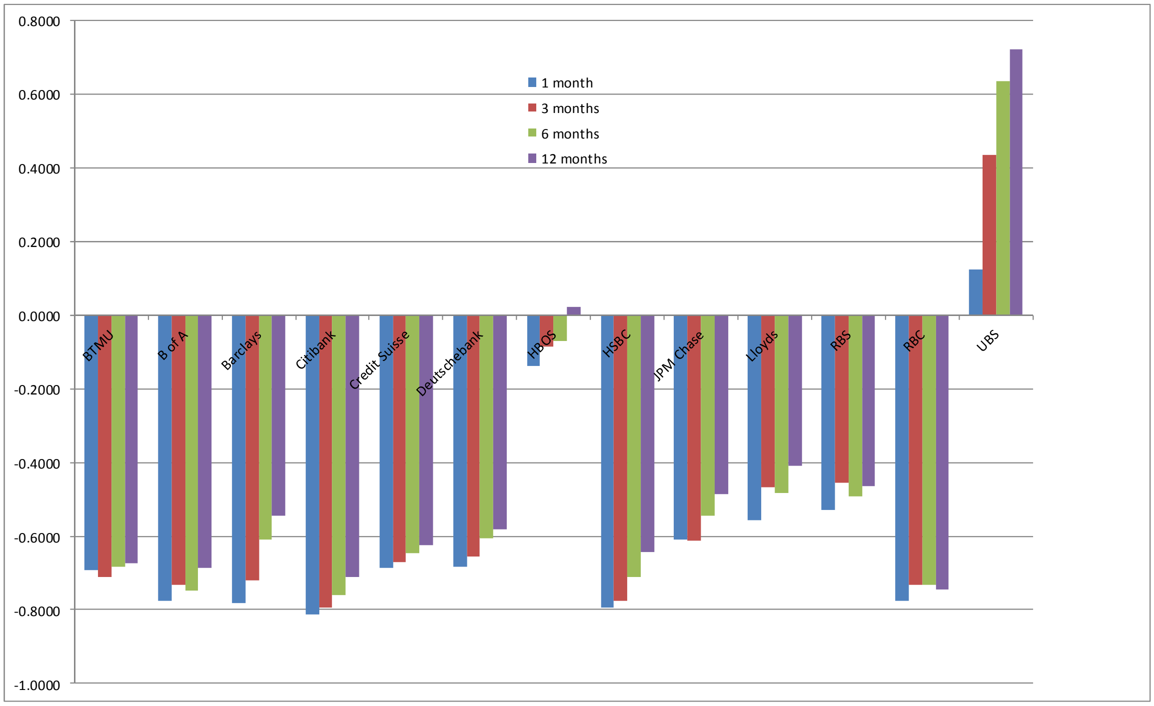
(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 5: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), 9 August 2007 – 12 September 2008 Period



(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 6: Correlation Coefficients Between Each Bank's Daily LIBOR Bid and Probability of Default (PD), 15 September 2008 – 31 December 2008 Period



(Note: PDs are estimated daily using the reduced form model of Kamakura Risk Information Services.)

2. The Discrepancy Between Libor And The Federal Reserve Eurodollar Deposit Rate During The Class Period Suggests the Panel Banks Collusively Suppressed Libor

179. As demonstrated by the work of an independent consulting expert retained by counsel in these actions, analysis of the Eurodollar market strongly supports that the panel banks suppressed their LIBOR quotes and colluded to suppress reported LIBOR. Moreover, this analysis further supports that the panel banks colluded to control the amount of suppression over the Class Period.

180. The U.S. Federal Reserve prepares and publishes Eurodollar deposit rates for banks (the "Federal Reserve Eurodollar Deposit Rate"). These Eurodollar deposit rates are analogous to LIBOR in that they reflect the rates at which banks in the London Eurodollar money market lend U.S. dollars to one another, just as LIBOR is intended to reflect rates at

which panel banks in the London interbank market lend U.S. dollars to one another. The Federal Reserve obtains its data from Bloomberg and the ICAP brokerage company.[98] Bloomberg Eurodollar deposit rate is similar to BBA's LIBOR except that the sampling is not limited to the 16 banks chosen by BBA. ICAP is a large broker-dealer in London in Eurodollar deposits.[99] ICAP surveys its client banks and updates its Eurodollar deposit rates about 9:30 each morning.

181. While the panel banks could have access to the ICAP Eurodollar deposit rates prior to submitting their individual LIBOR quotes at 11:00 each day, they would not — absent collusion — have access to other bank LIBOR quotes, which are confidential until submitted. Thus, even within the context of a suppressed LIBOR, absent collusion, individual panel banks would not know what quote other panel banks intended to submit relative to the Federal Reserve Eurodollar Deposit Rate.

182. The consulting expert determined that because of the nature of the relationship between the Federal Reserve Eurodollar Deposit Rate and LIBOR (detailed below), it would be unusual even for one bank to submit a LIBOR bid below the Federal Reserve's Eurodollar Deposit Rate. For all the panel banks to submit bids below the Federal Reserve Eurodollar Deposit Rate would be extremely unusual, and is strong evidence of collusion among the banks.

183. Economic and statistical analysis strongly supports the use of the Federal Reserve Eurodollar Deposit rate as a benchmark for measuring the validity of LIBOR as reported by the panel banks. To measure how well the Federal Reserve Eurodollar Deposit Rate and LIBOR move together, for the purposes of this analysis, the difference between the two rates, the

[98] See http://federalreserve.gov/releases/h15/data.htm, footnote 8, last accessed on April 23, 2012.

[99] "ICAP is the world's premier voice and electronic interdealer broker and the source of global market information and commentary for professionals in the international financial markets. The Group is active in the wholesale markets in interest rates, credit, energy, foreign exchange and equity derivatives. ICAP has an average daily transaction volume in excess of $1.5 trillion, more than 60% of which is electronic. ICAP plc was added to the FTSE 100 Index on 30 June 2006. For more information go to www.icap.com." See http://www.icapenergy.com/company/ (last accessed April 30, 2012)

"Spread," is calculated as follows: Spread = BBA LIBOR – Federal Reserve Eurodollar Deposit Rate.

184. Since both LIBOR and the Federal Reserve Eurodollar Deposit Rate measure the lending cost to banks of Eurodollar deposits, important market and financial fundamentals, such as day-to-day changes in monetary policy, market risk and interest rates, as well as risk factors facing the banks generally (collectively "Market Fundamentals"), should be reflected similarly on both variables, and therefore should not affect the Spread. The BBA's LIBOR panel is intended to reflect the Eurodollar deposit market in London. By focusing on the Spread, the model therefore should be able to factor out normal and expected co-movements in banks' LIBOR quotes that arise from changes in Market Fundamentals.

185. To analyze how well the Federal Reserve Eurodollar Deposit Rate captures changes in Market Fundamentals and absorbs variations in LIBOR that are driven by such fundamentals, consulting experts used regression analysis to measure the day-to-day changes in the Spread against changes in the T-Bill rate and the commercial paper rate. The evidence from these regressions strongly supports that day-to-day changes in the Federal Reserve Eurodollar Deposit Rate effectively capture day-to-day movements in LIBOR caused by Market Fundamentals. Thus, once the Federal Reserve Eurodollar Deposit Rate is subtracted to arrive at the Spread, remaining movements in LIBOR reflected in the Spread would be unrelated to movements in Market Fundamentals.

186. Because Market Fundamentals are fully captured by the Spread, absent manipulation, the Spread should always be zero or close to zero. Thus, as more fully discussed below, negative Spreads provide a strong basis to conclude that the panel banks suppressed and

colluded to artificially suppress LIBOR.[100]

187. Figures 1 and 2 show the relationship between LIBOR, the Federal Reserve Eurodollar Deposit Rate, and the Spread beginning in 2000 and ending in mid 2012. As can be seen, between January 5, 2000 and around August 7, 2007, Federal Reserve's Eurodollar Deposit Rate tracked LIBOR very closely and the Spread remained positive and very close to zero. This finding indicates that the Spread effectively captures shared risks of the banks sampled by BBA and by Bloomberg and ICAP. The validity of this finding is bolstered by the fact that the Spread remained very close to zero in the face of multiple major financial dislocations, including the bursting of the dot-com bubble in 2000, the terrorist attacks of September 2001, and the 2001 U.S. economic recession. Likewise, the unusual downward movements in the Spread starting in August 2007 strongly evidences that LIBOR was being manipulated and suppressed during this period.[101]

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[100] It is important to note that to the extent panel banks submitting LIBOR quotes submit suppressed rates to the BBA, and these suppressed rates are also considered by Bloomberg or ICAP, then the resultant Federal Reserve Eurodollar Deposit rate would also be understated by the same suppression. Consequently, the Spread computed above could even understate the true magnitude of the suppression.

[101] The Spread only became consistently positive around the end of October 2011, just after the European Commission raided banks in connection with LIBOR.

Figure 1: LIBOR and Federal Reserve Eurodollar Deposit Rate

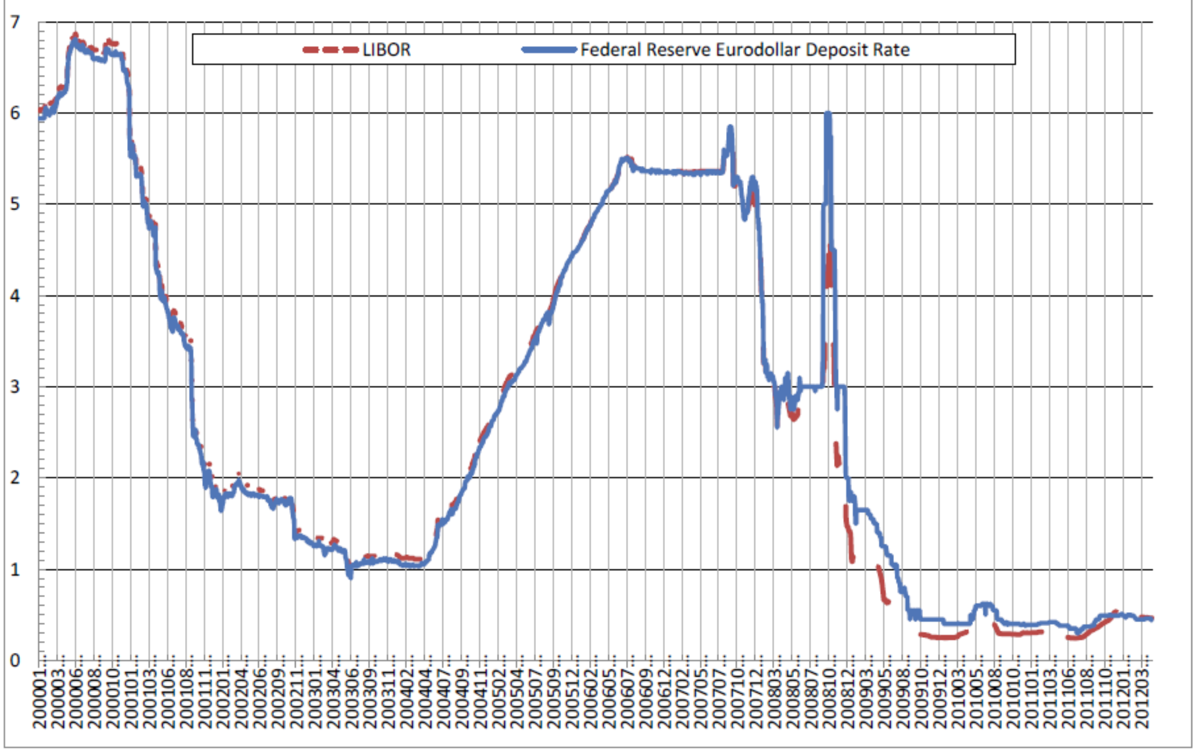
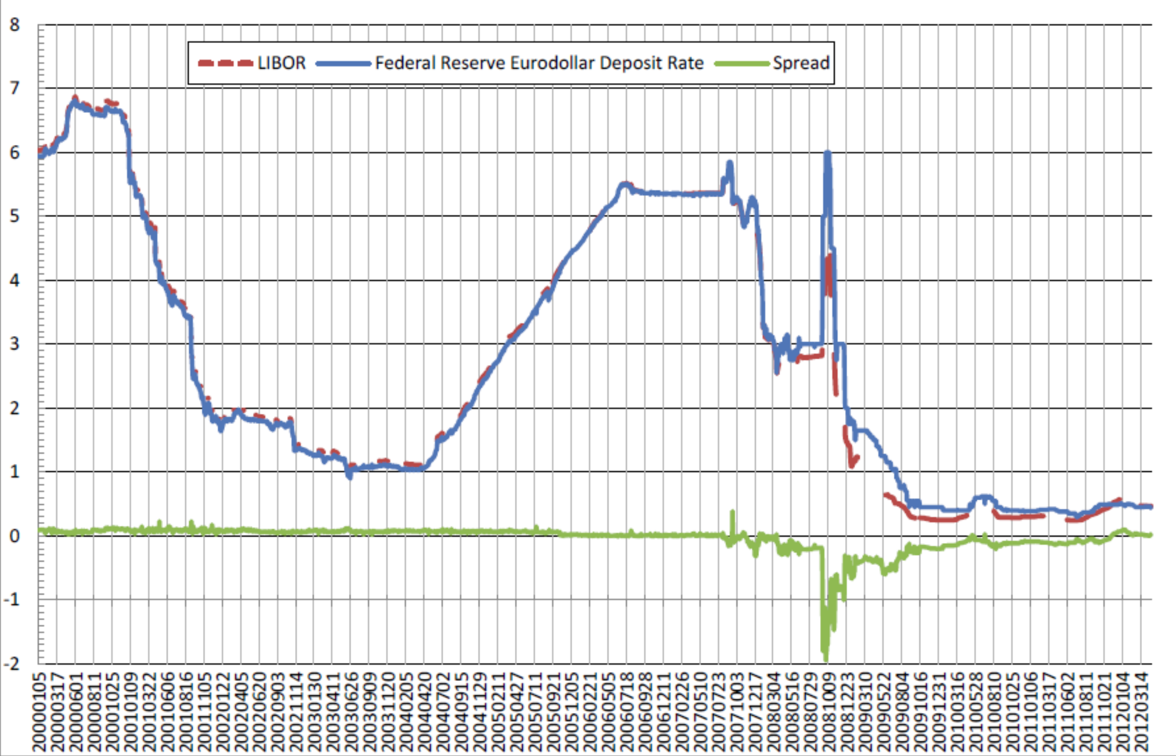
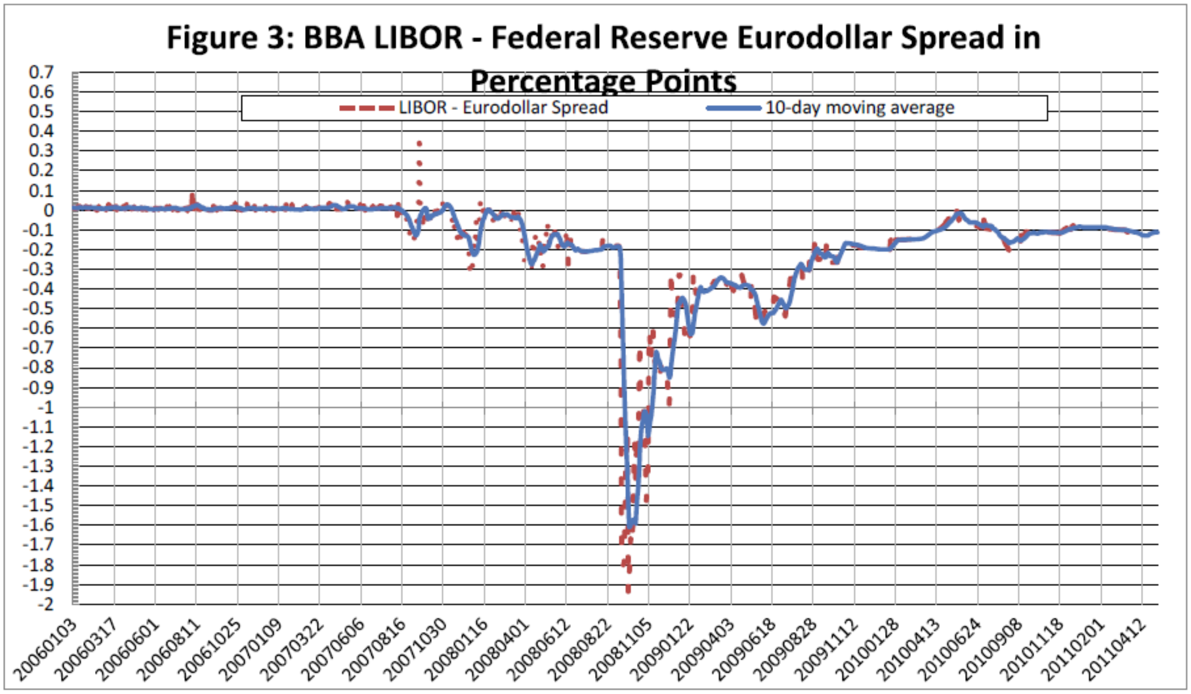


Figure 2: LIBOR and Federal Reserve Eurodollar Deposit Rate



188. Figure 3 shows the Spread between 3-month maturity BBA LIBOR and the Federal Reserve Eurodollar Deposit rate (3-month maturity BBA LIBOR – Federal Reserve Eurodollar Deposit rate), from January 2006 through early April 2012.



189. The shorter period between January 3, 2006 and August 7, 2007 demonstrated above contains 393 trading days. In this sub-period, there were only 3 days when the Spread was negative. Furthermore, the magnitude of these negative Spreads were also very small: -0.9 basis point on June 14, 2006, -0.5 basis point on July 27, 2006 and -0.2 basis point on November 2, 2006.[102] This finding again strongly supports that the Federal Reserve Eurodollar Deposit Rate serves as a good benchmark to control for Market Fundamentals that determine LIBOR. The average magnitude of the Spread during this period equaled less than one basis point. This finding also strongly supports that the risks of the banks sampled by BBA and Bloomberg and ICAP were similar.

190. By August 2007, however, the Spread began to move into negative territory.

[102] One basis point is one-hundredth of a percentage point.

During the early part of August 2007, the Federal Reserve Eurodollar Deposit Rate stayed around 5.36%. On August 8, the Federal Reserve Eurodollar Deposit Rate increased by 5 basis points to 5.41%, while BBA LIBOR did not keep pace. The Spread turned negative 3 basis points on August 8, 2007. The Spread remained mostly negative after August 7 so that by August 15, 2007, the trailing 10-day moving-average of the Spread also turned negative. By August 31, 2007, the Federal Reserve Eurodollar Deposit rate kept increasing to 5.78%, while LIBOR was lagging. The negative Spread on August 31 grew to -16 basis points.

191. The Spread remained negative over the next year. Between August 31, 2007 and September 15, 2008, the Spread remained negative on 234 of the 255 days, or 91.7% of the days. The magnitude of the negative Spread averaged about -12 basis points. During this approximately one year period, the negative Spread exceeded -25 basis points on 18 days.

192. A big shock to LIBOR (and the Spread) came just after Lehman Brothers filed for bankruptcy on September 15, 2008, leading to significantly increased concerns about the health of all banks. The increased concerns about the health of the banks were reflected in substantial increases in the Federal Reserve Eurodollar Deposit Rate. On September 15, 2008, the Federal Reserve Eurodollar Deposit Rate equaled 3.0%, increasing to 3.2%, 3.75%, and 5% on September 16, 17 and 18, respectively. By September 30, the Federal Reserve Eurodollar Deposit Rate doubled to 6%.

193. In spite of increased risks and worries about the banks after the Lehman bankruptcy filing, LIBOR did not keep pace with the Federal Reserve Eurodollar Deposit Rate during this period of heightened concerns, causing the Spread to become more negative. On September 16, 2008, the negative Spread nearly doubled to -32 basis points. The next day, on September 17, the negative Spread doubled again reaching -69 basis points. On September 18,

the negative Spread more than doubled once again reaching -180 basis points. Finally, on September 30, 2008, the negative Spread reached -195 basis points.

194. Thus, between September 15, 2008 and September 30, 2008, the Federal Reserve Eurodollar Deposit Rate increased by 300 basis points to reflect increasing concerns about the banks, while LIBOR increased by less than one-half, or by 123 basis points during the same period. This diversion in the behavior of the two rates strongly supports the finding that the panel banks intensified their collusive suppression of the LIBOR, and did so to understate their borrowing costs in the face of increasing concerns about the health of the banks.

195. The Spread remained negative for more than one and a half years following the Lehman filing, until May 17, 2010. As concerns about banks' financial health eased, so did the magnitude of the suppression of LIBOR. As stated earlier, Federal Reserve's Eurodollar Deposit Rate reached 6% on September 30, 2008. With the easing of the financial crisis, Federal Reserve's Eurodollar Deposit Rate fell to 0.45% on May 17, 2010. The average suppression of LIBOR between October 1, 2008 and May 17, 2010 equaled negative 38 basis points. The Spread finally turned positive for the first time during the post-Lehman period on May 17, 2010. Following this date, the Spread again became negative, with the magnitude of the Spread averaging around -10 basis points. The dramatic period of negative Spread during the Class Period, following years of uniform behavior between each individual Defendant Bank's LIBOR quote and the Federal Reserve Eurodollar Deposit Rate, is also graphically demonstrated by Figures 4 to 19 below on a bank by bank basis. Every Spread during the period August 8, 2007 to May 17, 2010 is statistically significant at the extremely high 99% confidence level.

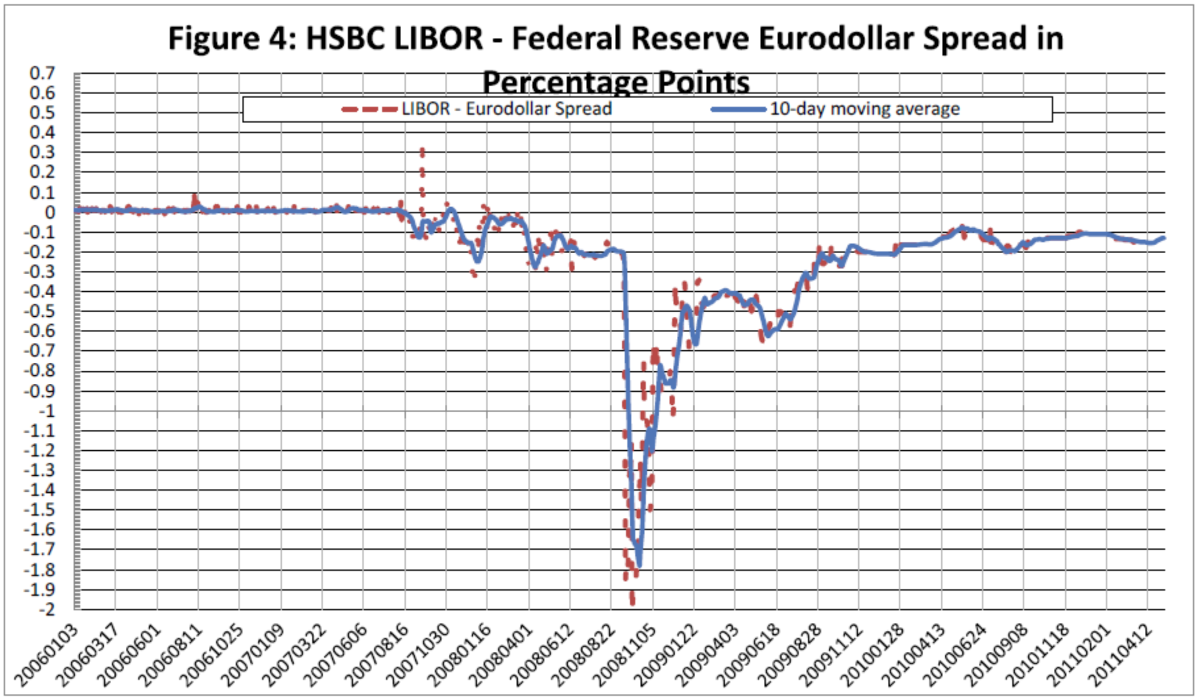


Figure 4: HSBC LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
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20100624
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20101118
20110201
20110412

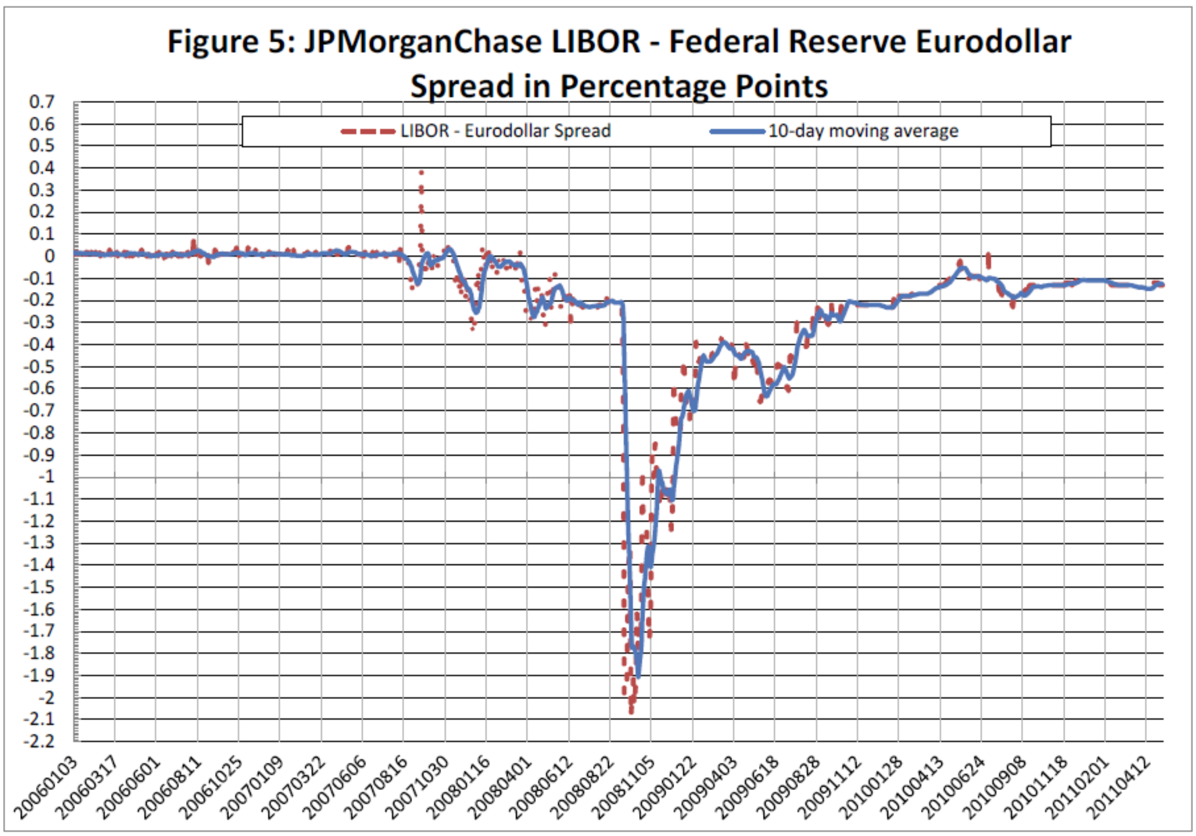
Figure 5: JPMorganChase LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
-2.1
-2.2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
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20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

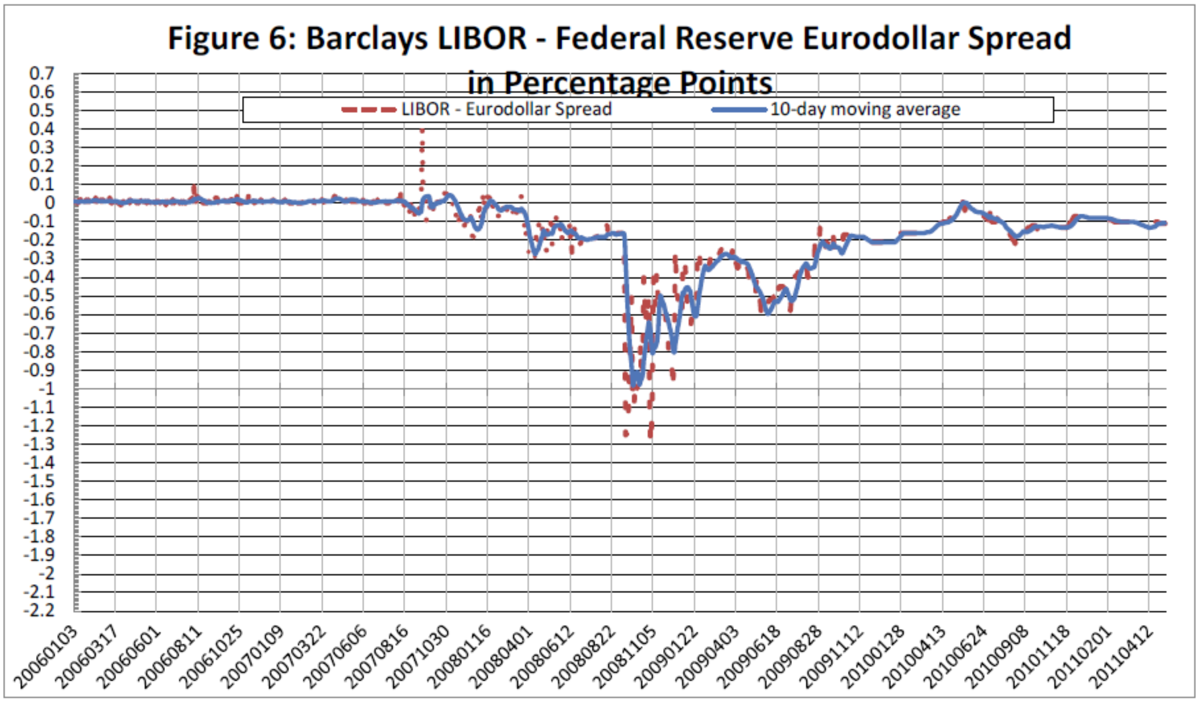


Figure 6: Barclays LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average

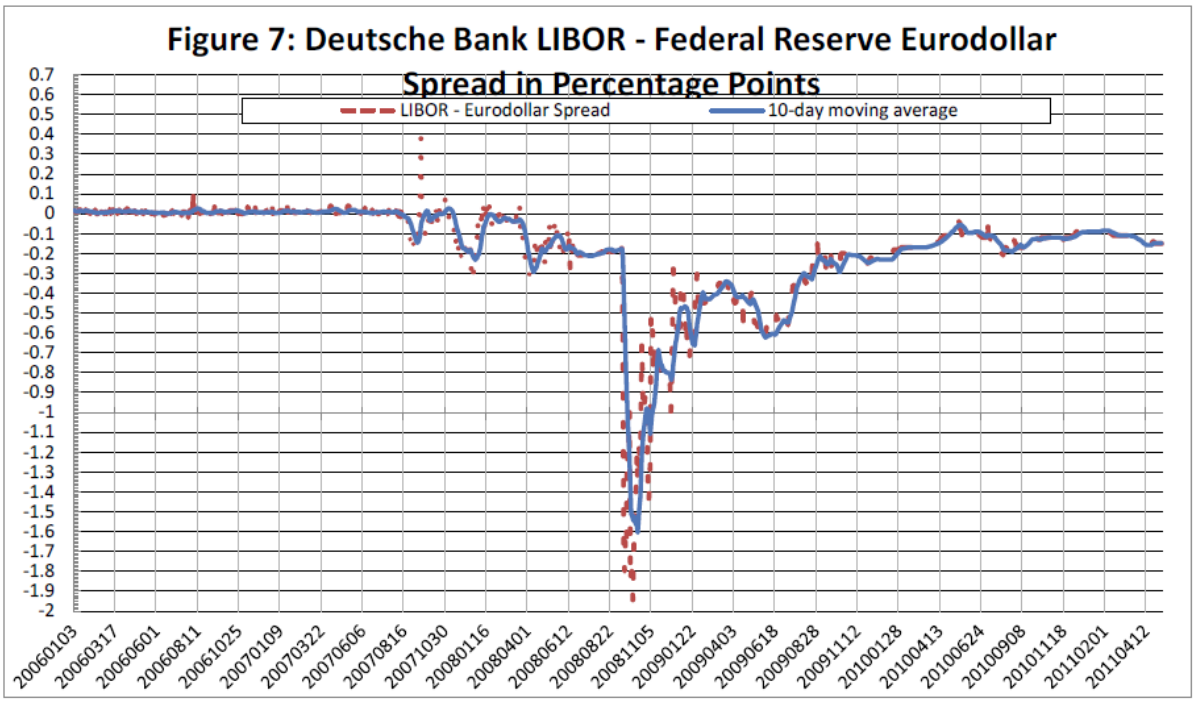


Figure 7: Deutsche Bank LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average

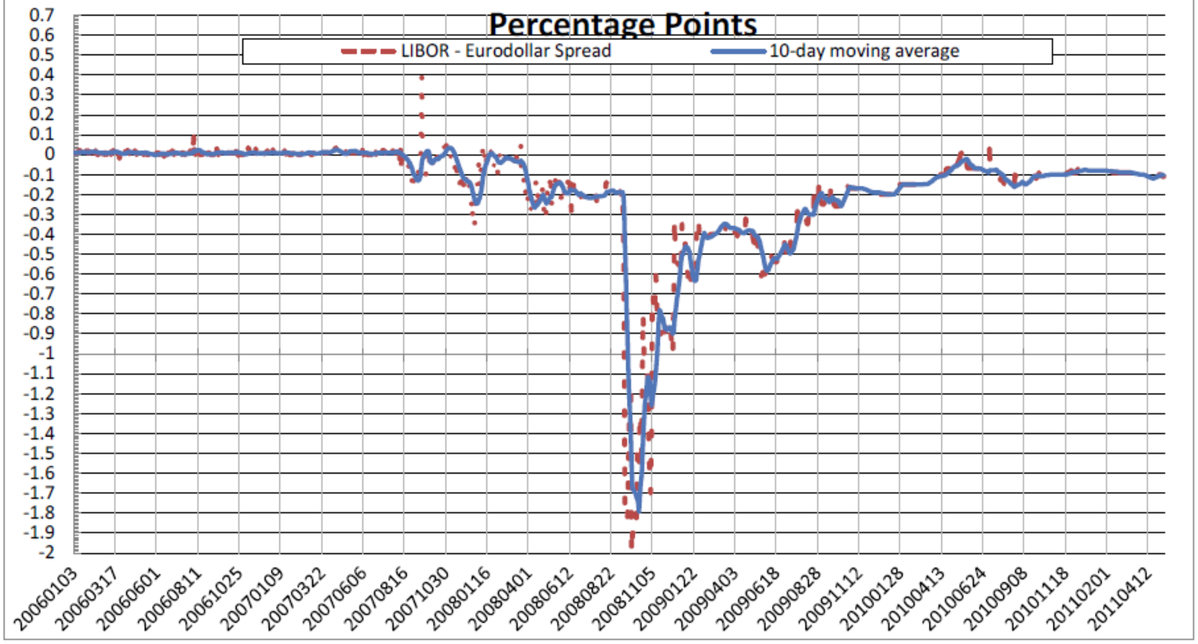


Figure 8: Lloyds LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

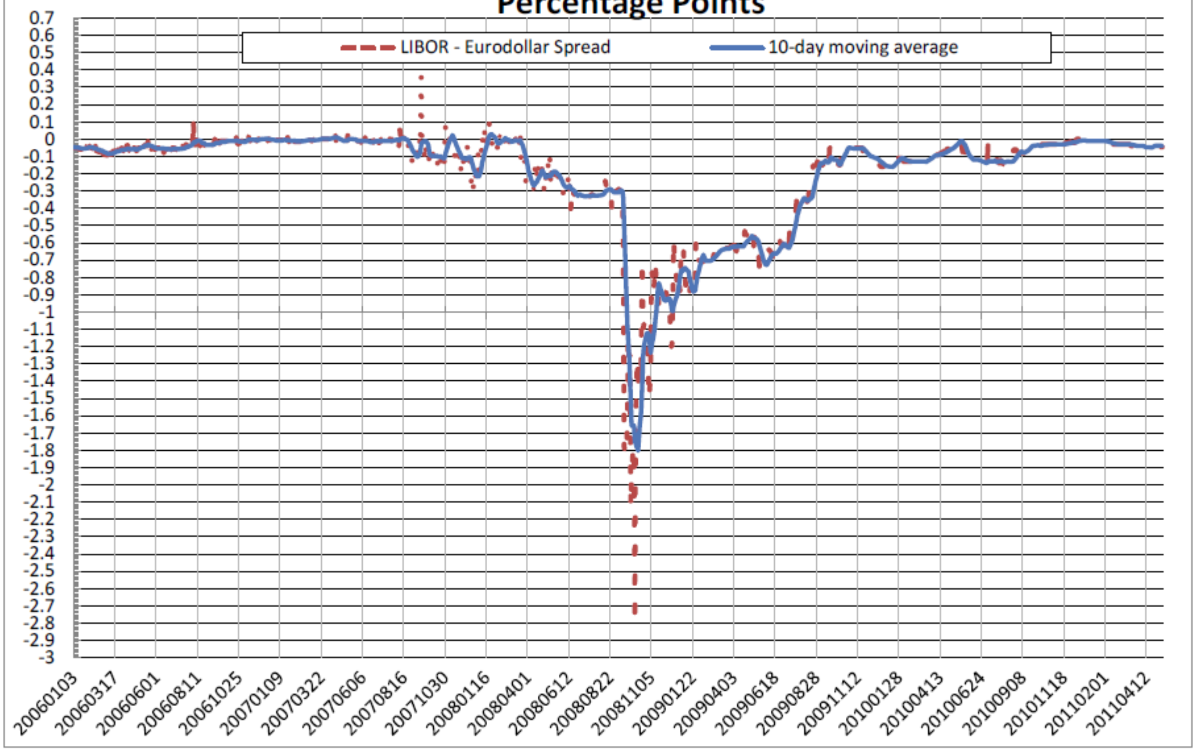


Figure 9: WestLB LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

Figure 10: RBS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

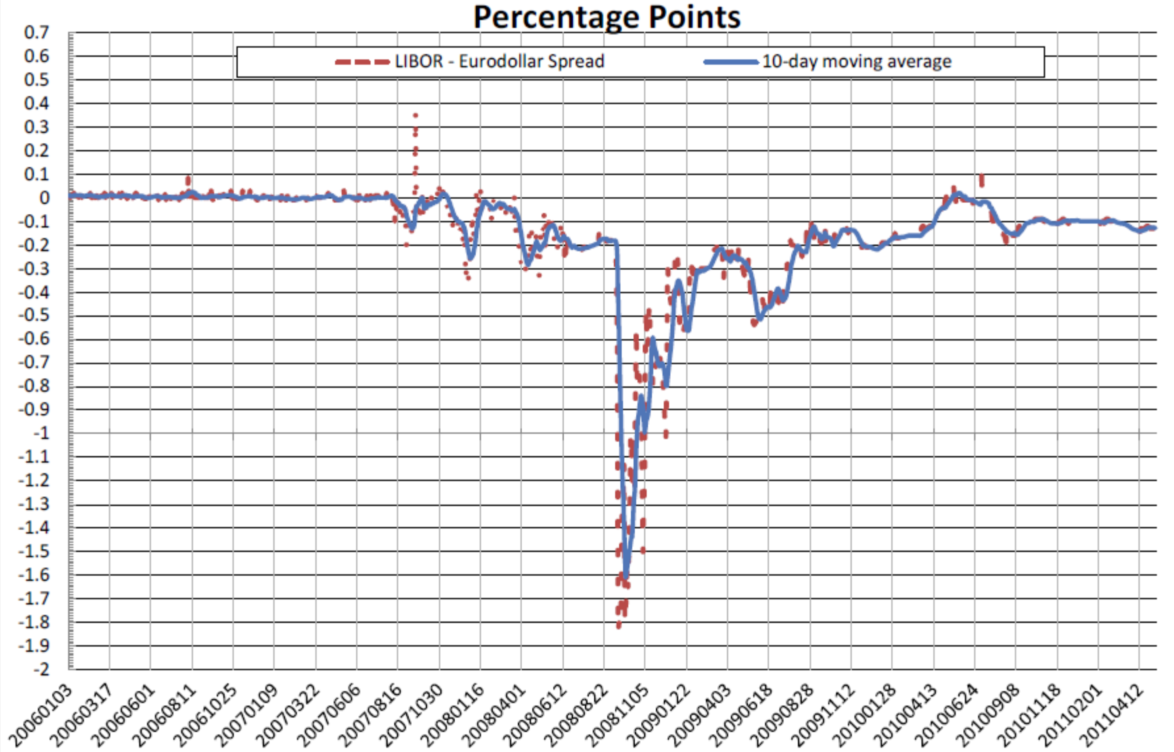
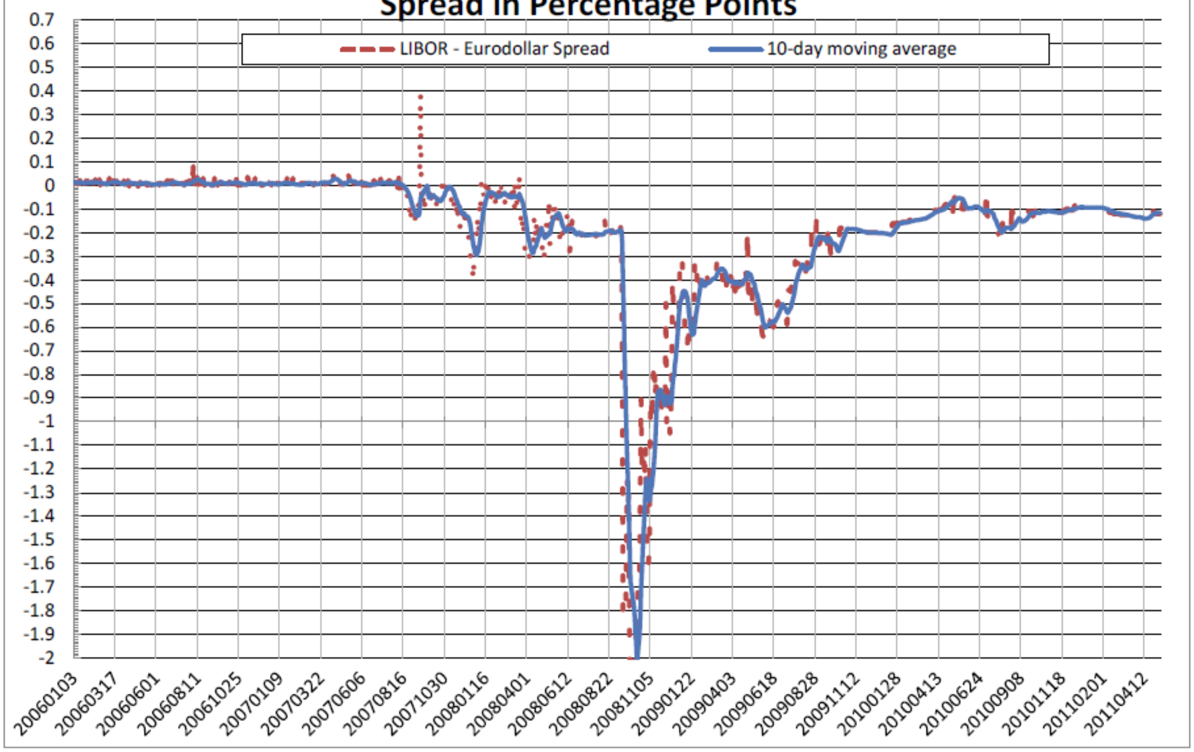


Figure 11: Rabo Bank LIBOR - Federal Reserve Eurodollar Spread in Percentage Points



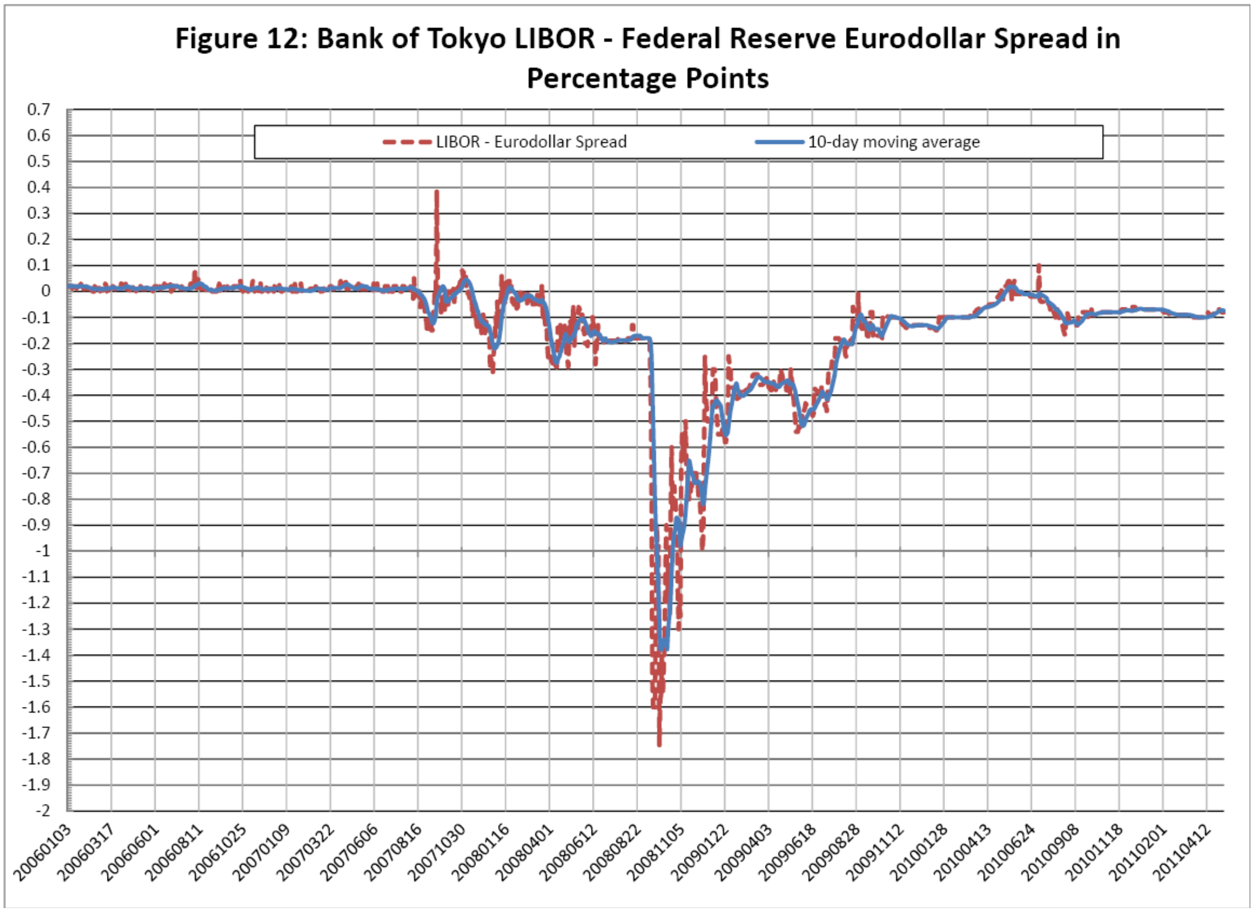


Figure 12: Bank of Tokyo LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

Figure 13: Citi LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

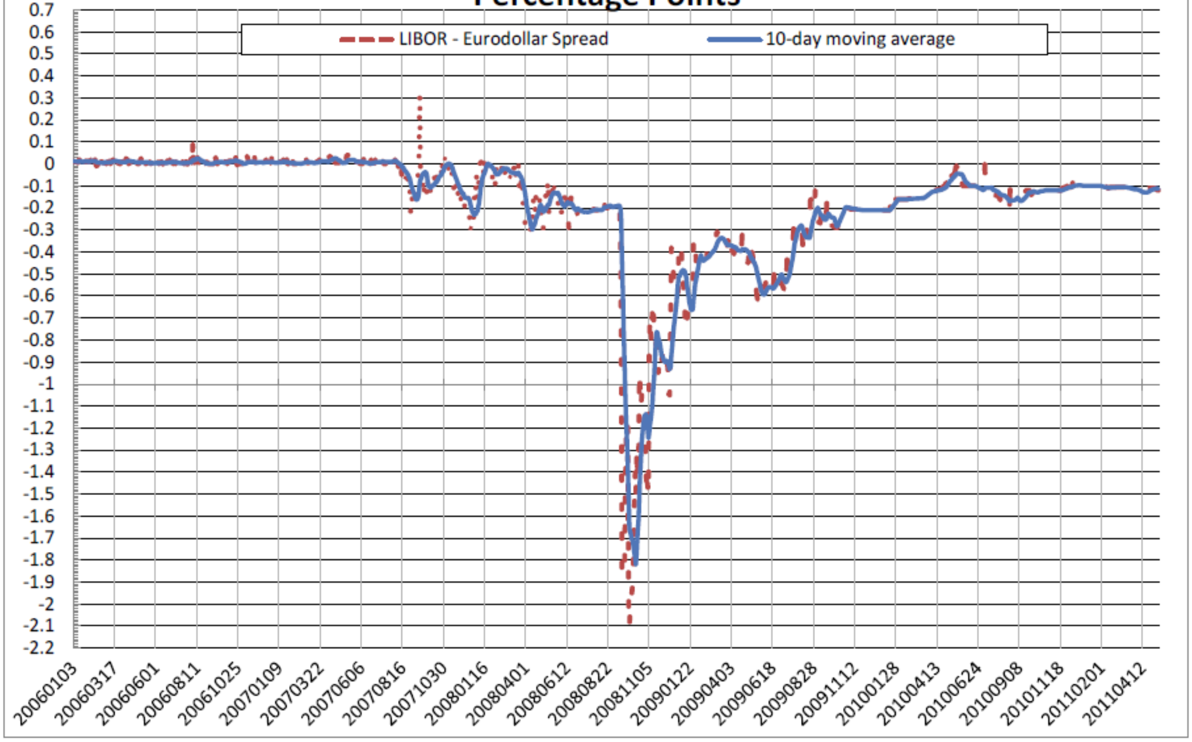


Figure 14: CS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

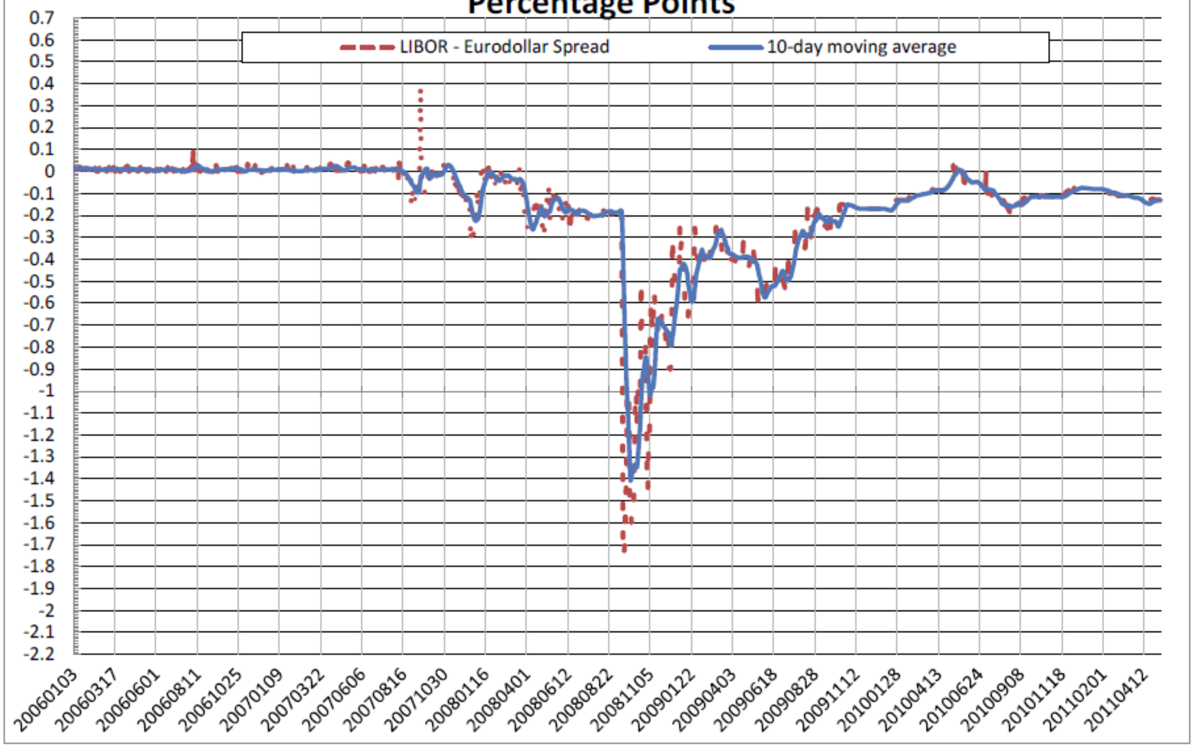


Figure 15: BoA LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

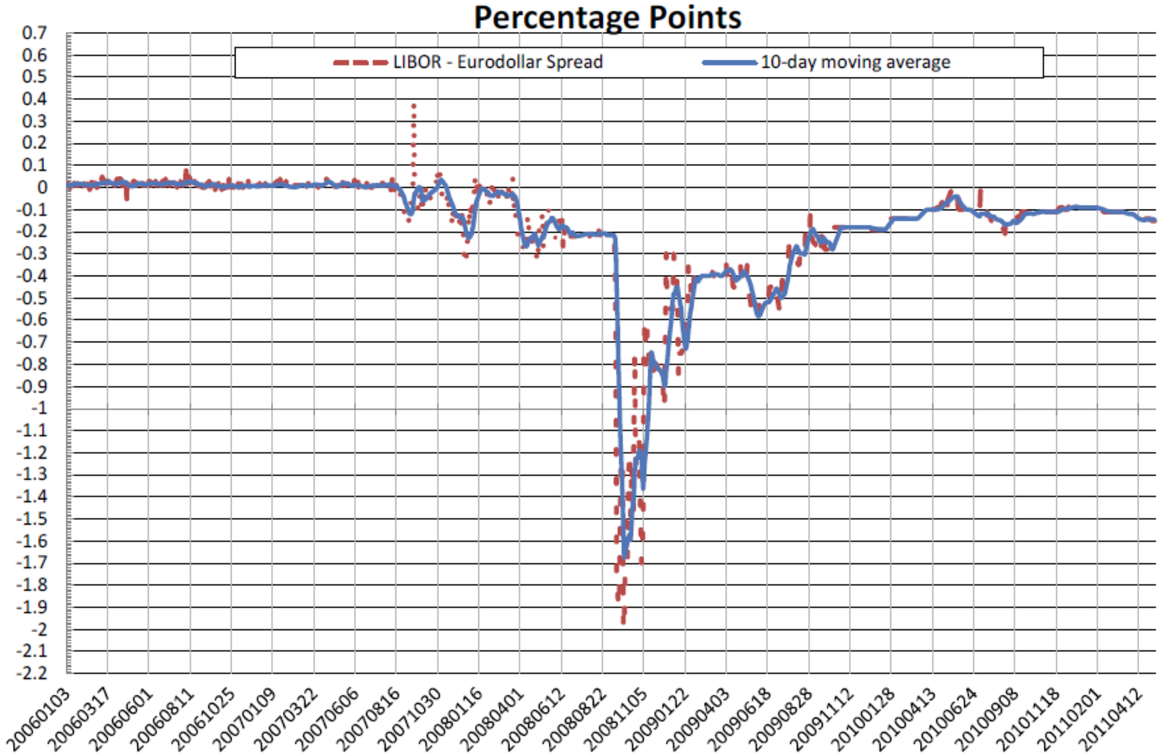


Figure 16: RBC LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

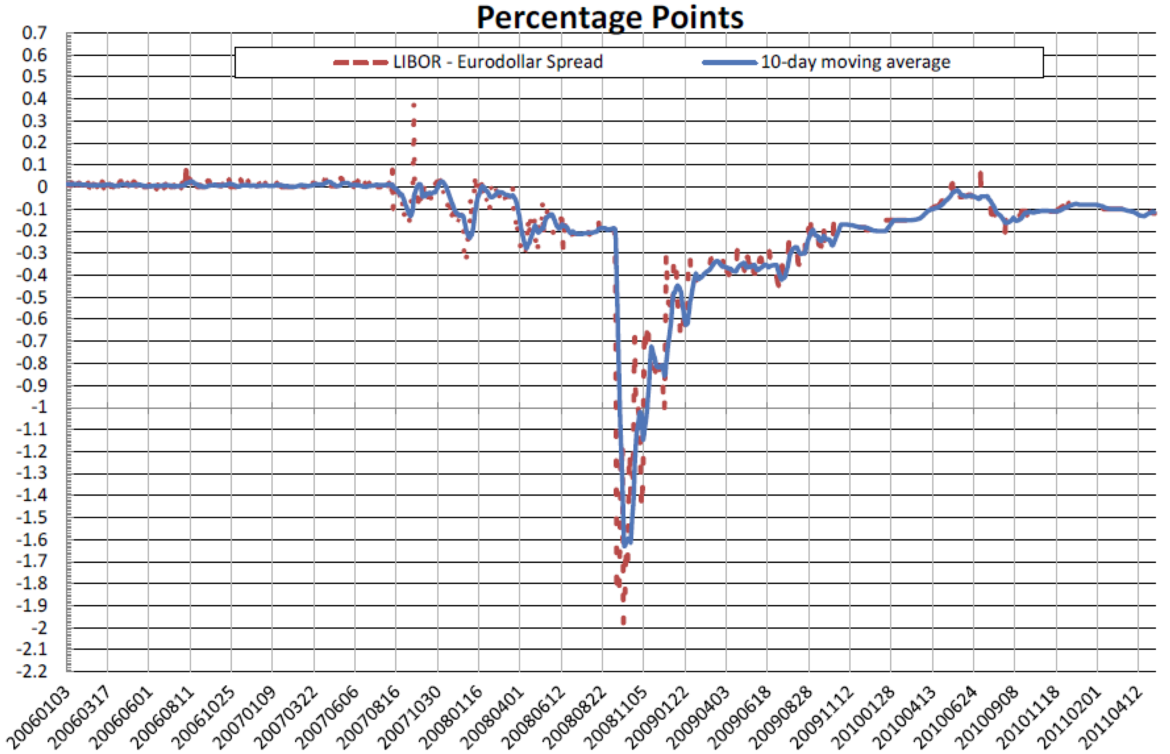


Figure 17: UBS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

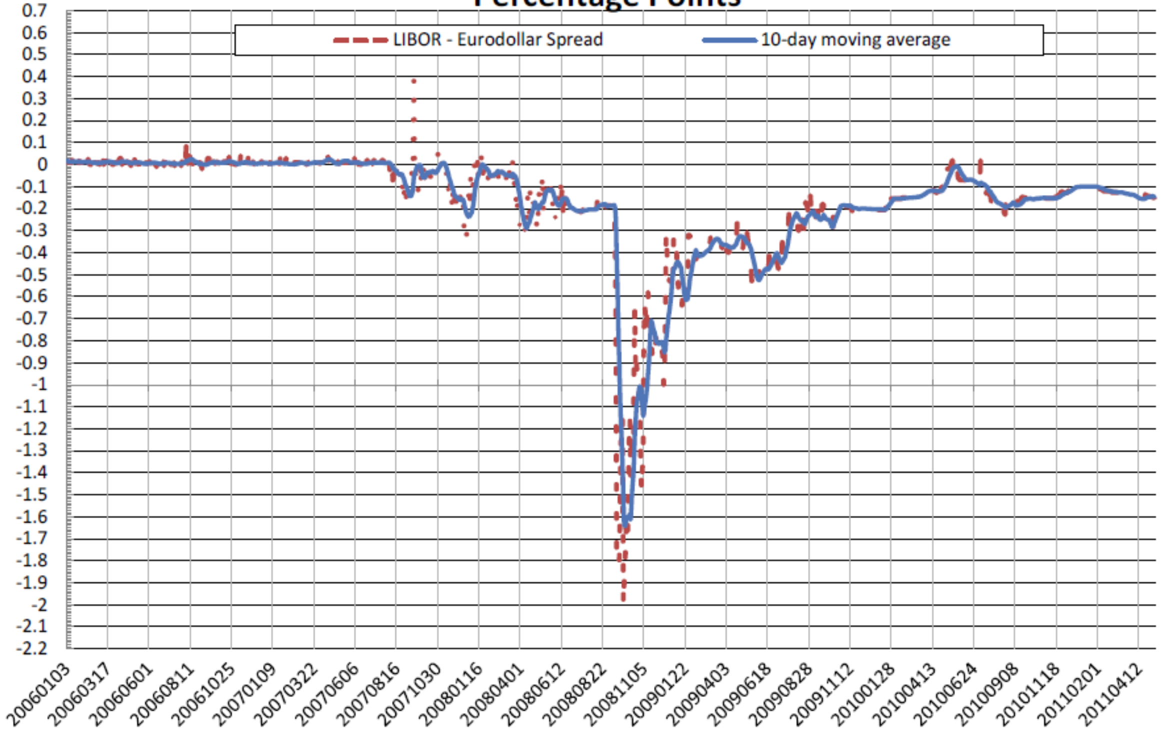
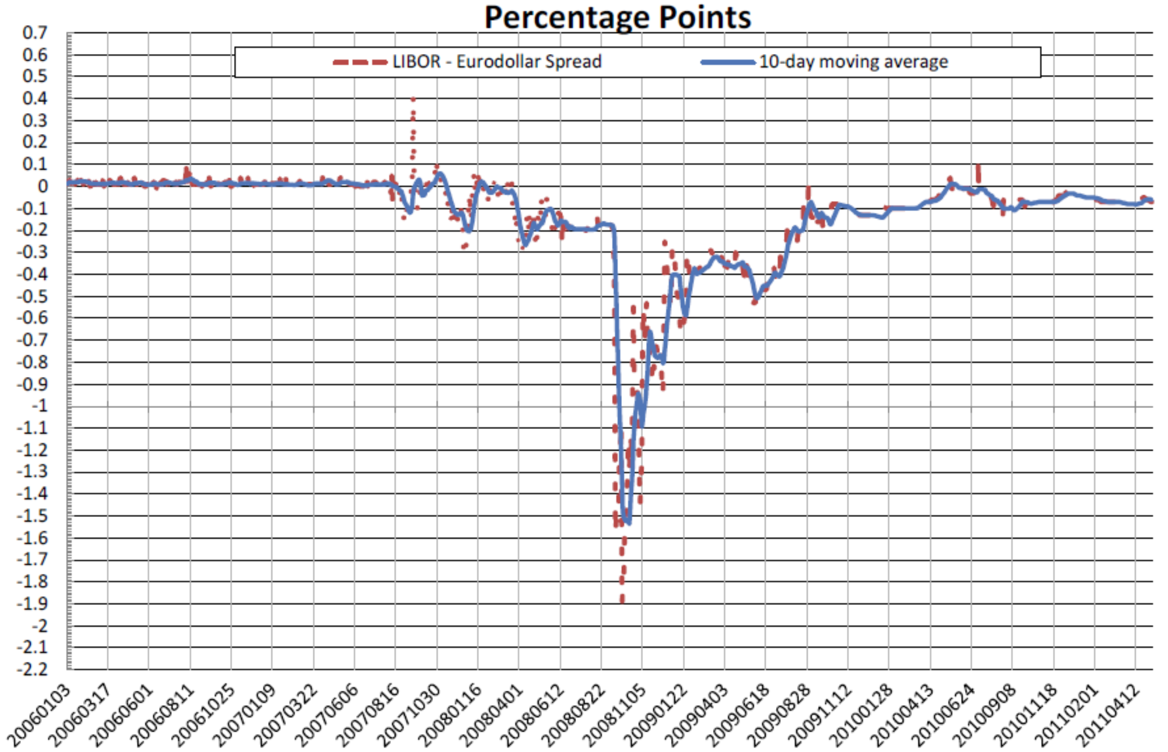


Figure 18: Norin LIBOR - Federal Reserve Eurodollar Spread in Percentage Points



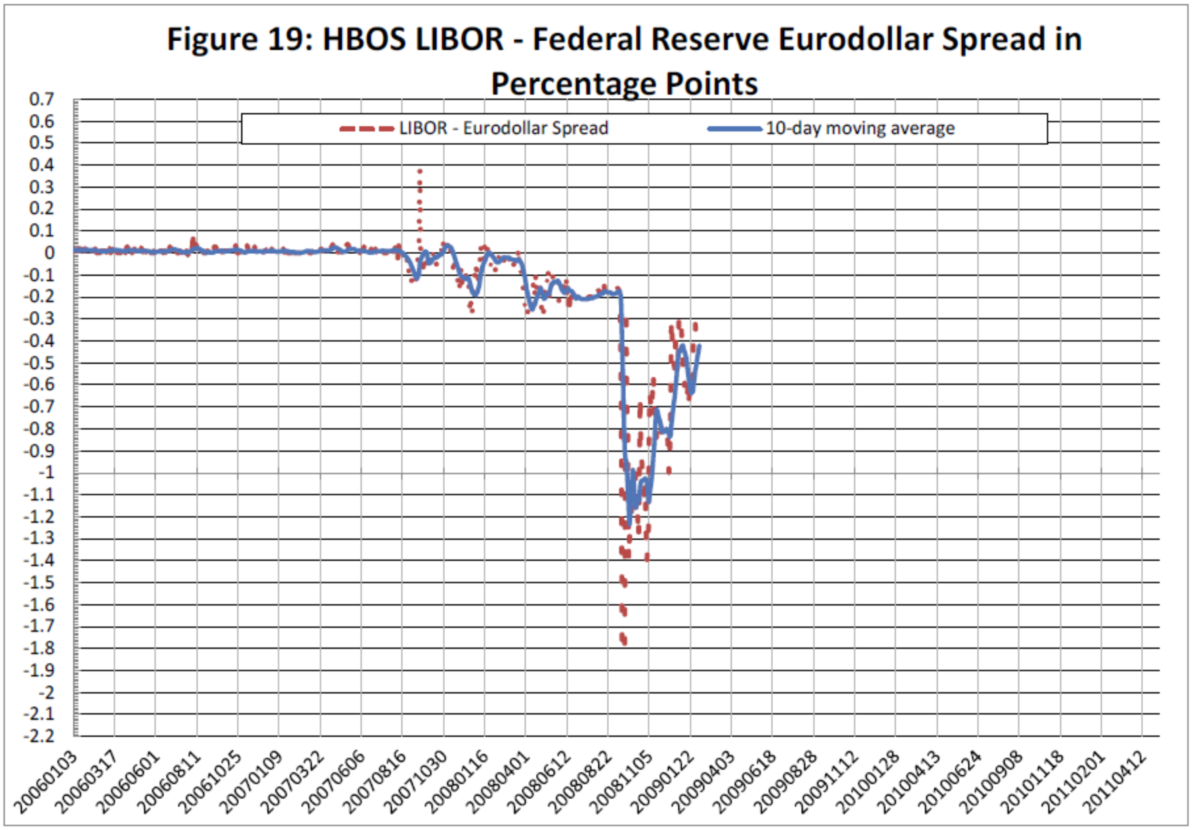


Figure 19: HBOS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
-2.1
-2.2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
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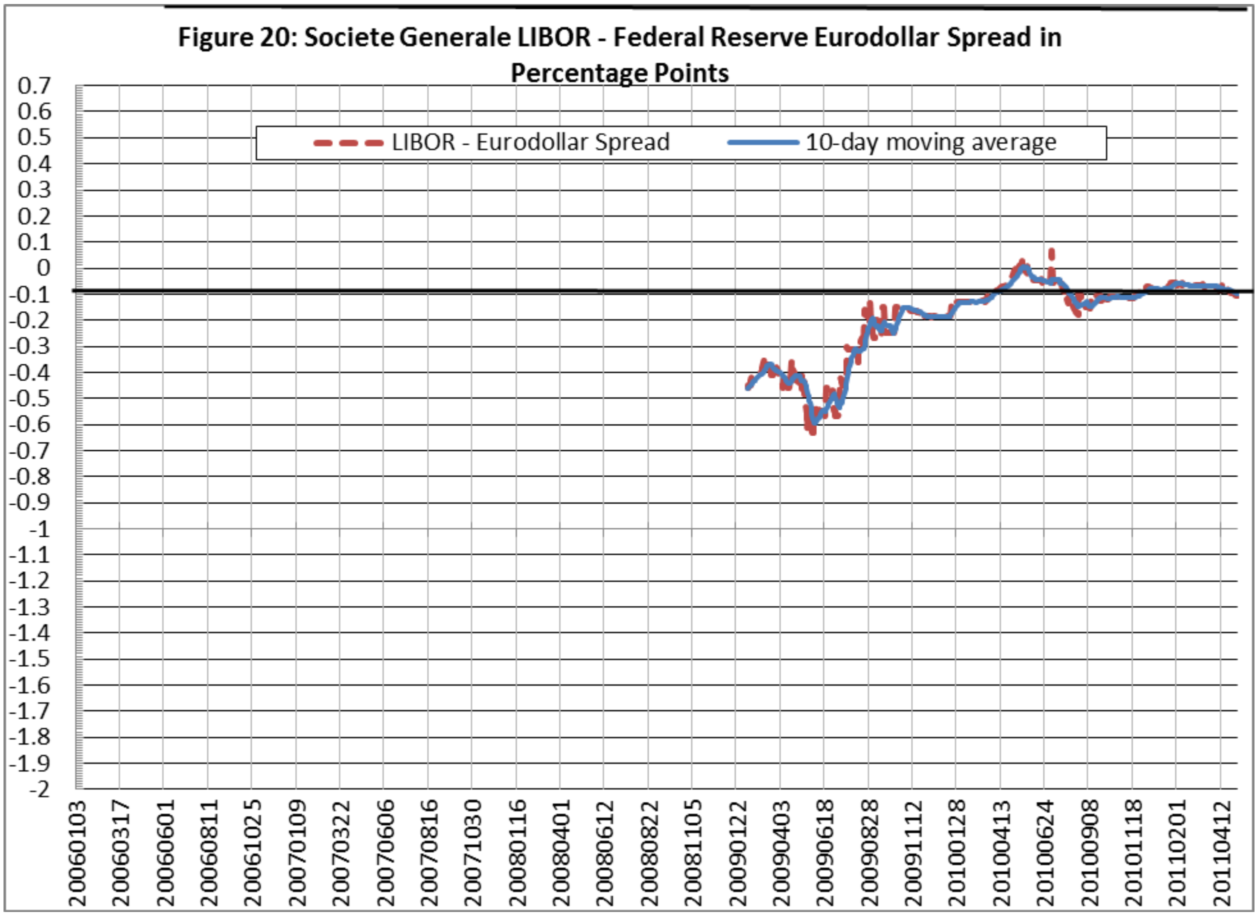


196. As the following chart demonstrates, the average Spread for each of the individual panel banks was uniformly negative throughout the entire Class Period, strongly supporting that each of these banks was suppressing its LIBOR quotes, and colluding to suppress reported LIBOR.[103]

BANK NAME	**Average Spread between August 8, 2007 through May 17, 2010**
1. Bank of Tokyo-Mitsb.	-25 basis points
2. Bank of America	-30 basis points
3. Barclays	-25 basis points
4. Citi	-32 basis points
5. CSFB	-27 basis points

[103] For Société Générale, the average spread between February 9, 2009 and May 17, 2010 was 27.1 basis points.

6. Deutsche Bank	-31 basis points
7. HBOS	-29 basis points
8. HSBC	-32 basis points
9. JP Morgan Chase	-35 basis points
10. Lloyds	-30 basis points
11. Norin Bank	-25 basis points
12. Rabo Bank	-32 basis points
13. Royal Bank of Canada	-28 basis points
14. Royal Bank of Scotland	-26 basis points
15. UBS	-29 basis points
16. West	-35 basis points

197. Moreover, as set forth in the following chart, during the critical two week period following the bankruptcy of Lehman Brothers, each of the panel banks dramatically increased its collusive suppression of LIBOR.

BANK NAME	**Average Spread between September 16, 2008 and September 30, 2008**
1. Bank of Tokyo-Mitsb.	-120 basis points
2. Bank of America	-144 basis points
3. Barclays	-87 basis points
4. Citi	-142 basis points
5. CS	-122 basis points
6. Deutsche Bank	-129 basis points
7. HBOS	-110 basis points
8. HSBC	-141 basis points
9. JP Morgan Chase	-153 basis points
10. Lloyds	-146 basis points
11. Norin Bank	-126 basis points
12. Rabo Bank	-143 basis points
13. Royal Bank of Canada	-140 basis points
14. Royal Bank of Scotland	-140 basis points
15. UBS	-141 basis points
16. West	-138 basis points

198. Every Spread during the period from September 16, 2008 to September 30, 2008 is statistically significant at the extremely high 99% confidence level.

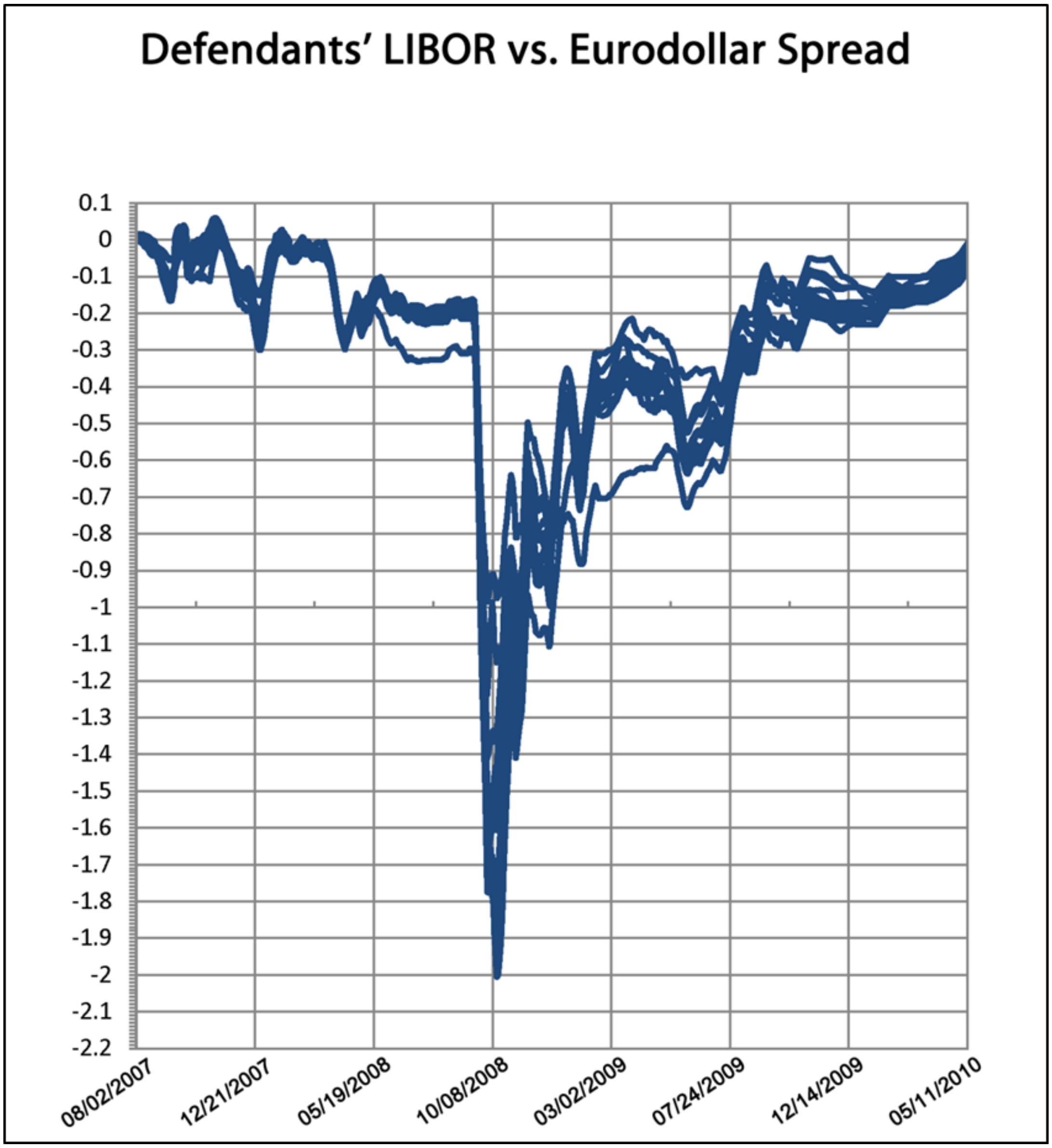
199. Plaintiffs' consulting expert finds the results reflected in these two tables to be

powerful and statistically significant evidence of the panel banks' collusive suppression of LIBOR during the Class Period.

200. The results show that each Defendant bank misreported its LIBOR submissions literally hundreds of times during the Class Period, and that collectively the misreporting by all banks numbered in the thousands.

201. While the degree of the suppression of LIBOR is shocking, the uniformity of the spreads between LIBOR and FRED—during turbulent and unpredictable times in the markets—strongly supports the inference that the suppression of LIBOR was due to collusion and coordination among the banks.

202. A visual depiction of the defendants' spreads draws this into stark relief:



203. As detailed above, analysis based on well accepted statistical methodologies strongly supports that suppression of LIBOR occurred during the Class Period, accomplished through the collusive conduct of the panel banks. The sustained period during which the Federal Reserve Eurodollar Deposit – LIBOR Spread fell and remained starkly negative, as seen in Figure 2 above, accounting as it does for Market Fundamentals, is not plausibly achievable absent collusion among the panel banks. The intensified suppression from September 16, 2008 to September 30, 2008 (following the Lehman bankruptcy), in defiance of economic

expectations, provides further powerful support for the suppression of LIBOR achieved through collusion by the panel banks. Because no Defendant Bank – absent collusive conduct – could know what LIBOR quote another panel bank actually intended to submit prior to those numbers being made public after 11:00 each morning, the fact that all the panel banks submitted LIBOR quotes below the Federal Reserve Eurodollar Deposit Rate over the Class Period further strongly supports the participation of each Defendant Bank in the suppressive and collusive scheme.

J. Empirical Analyses By Academics And Other Commentators Further Indicate LIBOR Suppression Occurred.

204. In addition to the independent expert work detailed above, publicly available analyses by academics and other commentators likewise support the OTC Plaintiffs' allegations. While those studies used various comparative benchmarks and did not employ uniform methodologies, they collectively indicate LIBOR was artificially suppressed during the Class Period.

1. The discrepancy between the panel banks' reported LIBOR quotes and their CDS spreads indicates the banks misrepresented their borrowing costs to the BBA.

205. One economic indicator that the panel banks suppressed USD-LIBOR during the Class Period is the variance between their LIBOR quotes and their contemporaneous cost of buying default insurance—*i.e.*, a credit-default swap ("CDS")—on debt they issued during that period.

206. The spread serves as a measure of the perceived risk of default by the entity issuing the underlying bond or receiving the loan—the greater the risk of default the underlying bond or loan bears, the greater the CDS spread. In the case of a CDS for which the underlying instrument consists of an interbank loan where a USD-LIBOR panel bank is the borrower, the greater the perceived risk the panel bank will default on the loan, the higher the applicable CDS

spread, as this higher spread represents the cost of insuring against the increased risk of a default on the underlying loan.

207. As one commentator has observed, "The cost of bank default insurance has generally been positively correlated with LIBOR. That is, in times when banks were thought to be healthy, both the cost of bank insurance and LIBOR decreased or remained low, but when banks were thought to be in poor condition, both increased."[104] During the Class Period, however, those historically-correlated indicia of banks' borrowing costs diverged significantly.

208. That discrepancy was detailed in a May 29, 2008 *Wall Street Journal* article reporting the results of a study it had commissioned. The *Journal*'s analysis indicated numerous banks caused LIBOR, "which is supposed to reflect the average rate at which banks lend to each other," to "act as if the banking system was doing better than it was at critical junctures in the financial crisis."[105] The *Journal* found that beginning in January 2008, "the two measures began to diverge, with reported LIBOR rates failing to reflect rising default-insurance costs."

209. The *Journal* observed that the widest gaps existed with respect to the LIBOR quotes of the panel banks Citibank, WestLB, HBOS, JPMorgan Chase, and UBS. According to the *Journal*'s analysis, Citibank's LIBOR quotes differed the most from what the CDS market suggested the bank's borrowing cost was. On average, the rates at which Citibank reported it could borrow dollars for three months (*i.e.*, its three-month LIBOR quote) were about 87 basis points *lower* than the rates calculated using CDS data. WestLB, HBOS, JPMorgan Chase, and UBS likewise exhibited significant LIBOR-CDS discrepancies—of 70, 57, 43, and 42 basis points, respectively—while the panel banks Credit Suisse, Deutsche Bank, Barclays, HSBC,

[104] Justin Wong, "LIBOR Left in Limbo; A Call for More Reform," 13 *North Carolina Banking Institute* 365, 371 (2009) (footnotes omitted).
[105] *See* Carrick Mollenkamp and Mark Whitehouse, "Study Casts Doubt on Key Rate --- WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor."

Lloyds, and RBS each exhibited discrepancies of about 30 basis points. The study's authors concluded "one possible explanation for this gap is that banks understated their borrowing rates."

210. Citing another example of suspicious conduct, the *Journal* observed that on the afternoon of March 10, 2008, investors in the CDS market were betting that WestLB—hit especially hard by the credit crisis—was nearly twice as likely to renege on its debts as Credit Suisse, which was perceived to be in better shape, yet the next morning the two banks submitted identical LIBOR quotes.

211. Additionally, having compared the banks' LIBOR quotes to their actual costs of borrowing in the commercial-paper market, the *Journal* reported, for example, that in mid-April 2008, UBS paid 2.85% to borrow dollars for three months, but on April 16, 2008, the bank quoted a borrowing cost of 2.73% to the BBA.

212. The *Journal* further noted an uncanny equivalence between the LIBOR panel banks' quotes: the three-month borrowing rates the banks reported remained within a range of only 0.06 of a percentage point, even though at the time their CDS insurance costs (premiums) varied far more widely, reflecting the market's differing views as to the banks' creditworthiness. According to Stanford University professor Darrell Duffie, with whom the authors of the *Journal* article consulted, the unity of the banks' LIBOR quotes was "far too similar to be believed."

213. David Juran, a statistics professor at Columbia University who reviewed the *Journal*'s methodology, similarly concluded that the *Journal's* calculations demonstrate "very convincingly" that reported LIBOR is lower, to a statistically significant degree, than what the market thinks it should be.

214. Calculating an alternate borrowing rate incorporating CDS spreads, the *Journal* estimated that misreporting of LIBOR had a $45 billion effect on the market, representing the

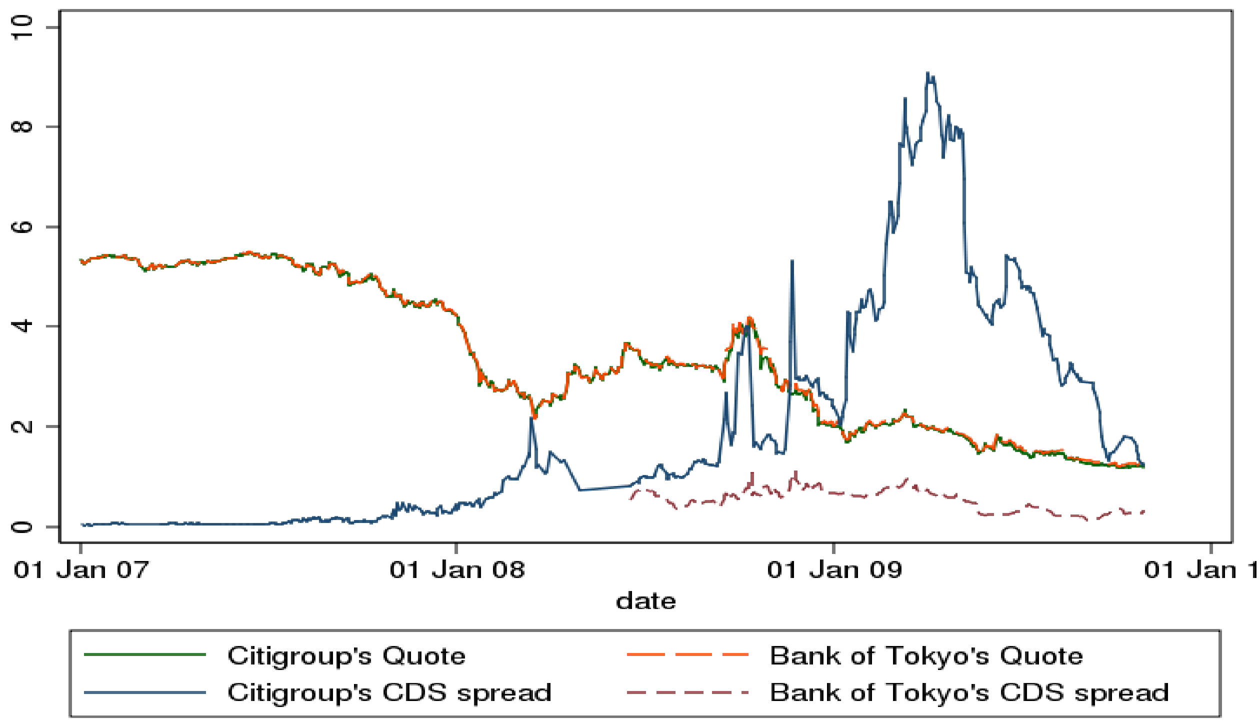
amount borrowers (the banks) did not pay to lenders (investors in debt instruments issued by the banks) that they would otherwise have had to pay.

215. According to the *Journal*, three independent academics, including Professor Duffie, reviewed its methodology and findings, at the paper's request. All three deemed the *Journal*'s approach "reasonable."

216. Further economic analysis supports the correlation seen in the *Journal*'s report. A study by Connan Snider and Thomas Youle—of the economics departments at UCLA and the University of Minnesota, respectively—released in April 2010 concluded LIBOR did not accurately reflect average bank borrowing costs, its "ostensible target."[106] Noting that "[i]n a competitive interbank lending market, banks' borrowing costs should be significantly related to their perceived credit risk," Snider and Youle posited that if LIBOR quotes "express true, competitively determined borrowing costs," they should "be related to measures of credit risks, such as the cost of default insurance." According to Snider and Youle's analysis, however, quotes provided by USD-LIBOR panel banks in fact deviated from their costs of borrowing as reflected in CDS spreads.

217. Comparing, for example, the 12-month USD-LIBOR quotes from Citigroup and Bank of Tokyo together with each banks' corresponding one-year senior CDS spreads, Snider and Youle observed (as illustrated in the graph below) "that while Citigroup has a substantially higher CDS spread than [Bank of Tokyo], it submits a slightly lower Libor quote." Accordingly, the authors explain, while the CDS spreads "suggest that the market perceives Citigroup as riskier than [Bank of Tokyo], as it is more expensive to insure against the event of Citigroup's default," the banks' LIBOR quotes "tell the opposite story."

[106] Connan Snider and Thomas Youle, "Does the LIBOR reflect banks' borrowing costs?", April 2, 2010.

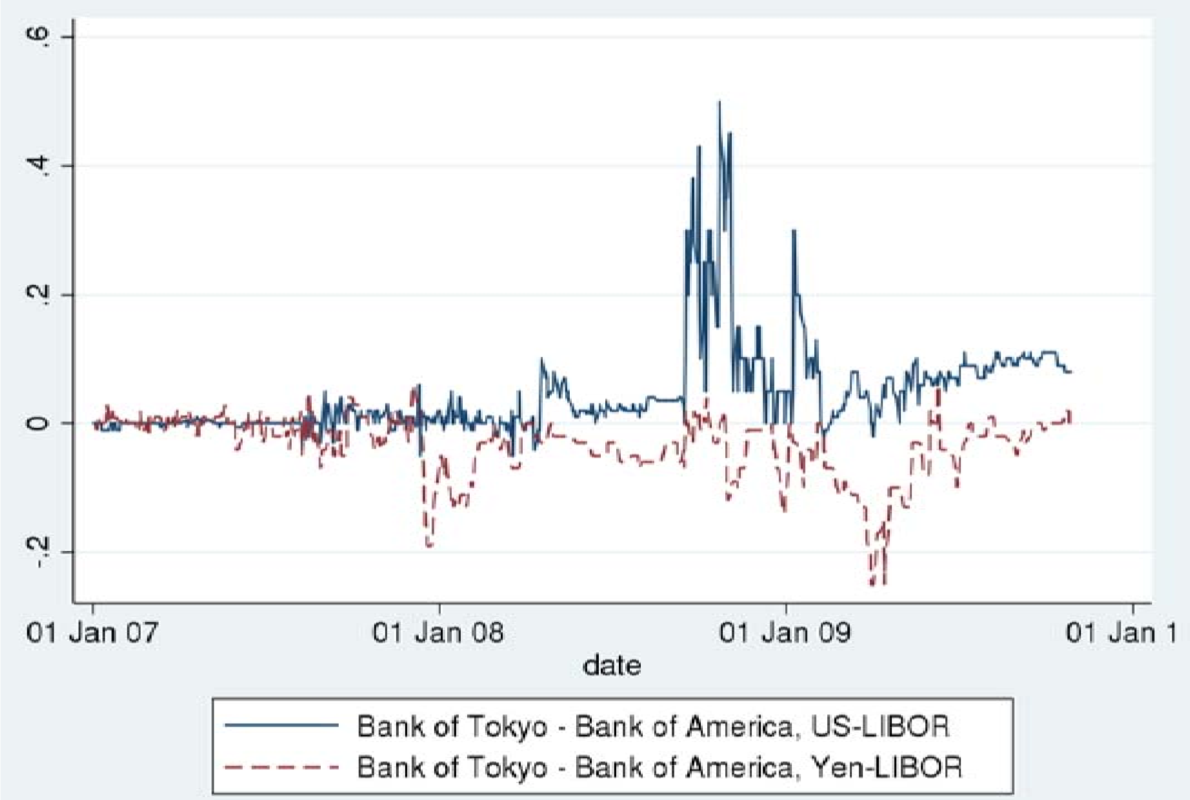


218. Snider and Youle further noted the level of Citigroup's CDS spreads relative to its Snider and Youle further noted the level of Citigroup's CDS spreads relative to its LIBOR quotes was "puzzling." The authors explained, "Given that purchasing credit protection for a loan makes the loan risk free, one would expect [the] difference between the loan rate and the CDS spread to roughly equal the risk free rate. This corresponds to the idea that a loan's interest rate contains a credit premium, here measured by the CDS spread." But the authors observed that Citigroup's quote was often "significantly below its CDS spread," implying "there were interbank lenders willing to lend to Citigroup at rates which, after purchasing credit protection, would earn them *a guaranteed 5 percent loss*." (Emphasis added). That discrepancy contravenes basic rules of economics and finance, thus indicating Citibank misreports its borrowing costs to the BBA.

2. <u>Cross-currency discrepancies in the panel banks' LIBOR quotes indicate they suppressed USD-LIBOR.</u>

219. The panel banks' LIBOR quotes also displayed inexplicable "cross-currency rank

reversals." That is, as detailed in Snider and Youle's paper referenced above, at least some panel banks reported lower rates on USD-LIBOR than did other panel members but, for other currencies, provided higher rates than did those same fellow banks. Both BAC and BTMU, for instance, quoted rates for USD-LIBOR and Yen-LIBOR during the period under study, yet BAC quoted a lower rate than BTMU for USD-LIBOR and a *higher* rate than BTMU for Yen-LIBOR. Other panel banks included in Snider and Youle's analysis—Barclays, Citigroup, and JPMorgan Chase—displayed similar anomalies across currencies, as the graphs below illustrate. Citigroup, for example, often reported rates at the top of the Yen-LIBOR scale while simultaneously quoting rates at the bottom of the USD-LIBOR scale. Because, Snider and Youle explain, "the same bank is participating in each currency," the credit risk "is the same for loans in either currency"; thus these "rank reversals" demonstrate that differences in the banks' LIBOR quotes "are not primarily due to differences in credit risk, something we would expect of their true borrowing costs."



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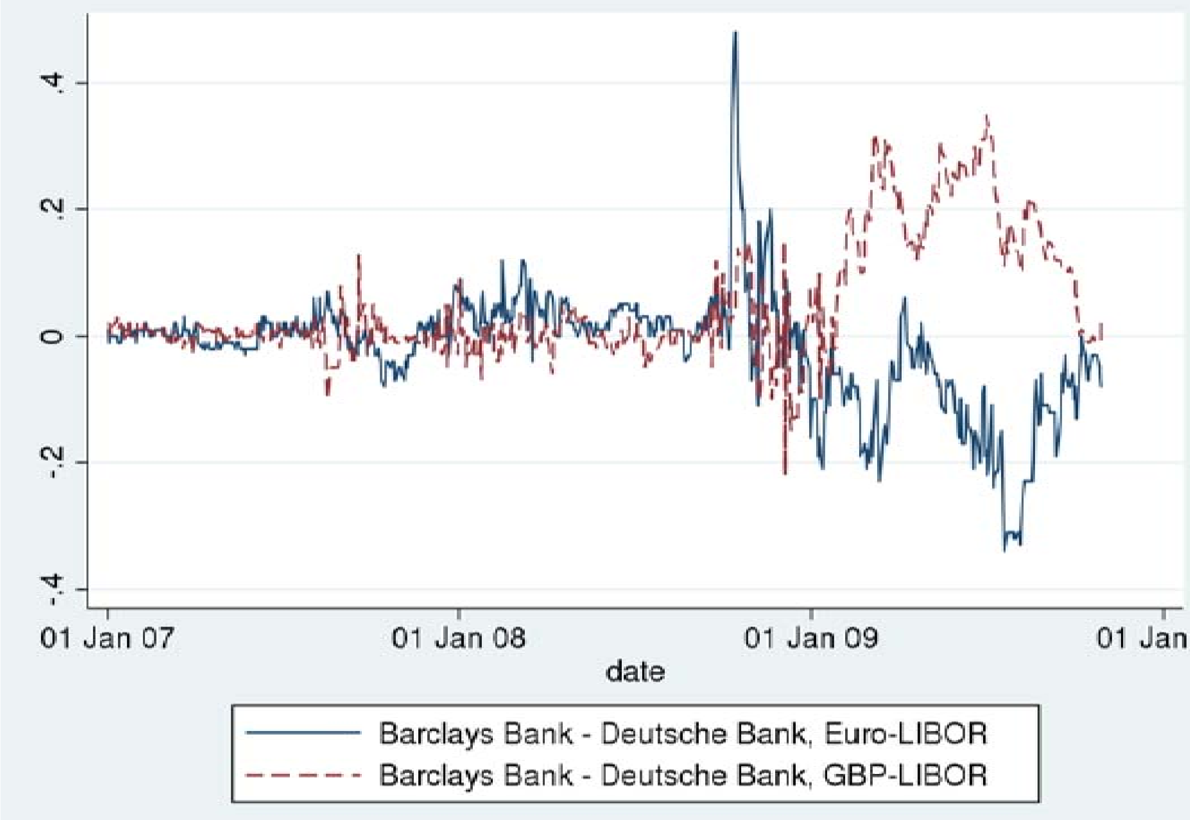
Bank of Tokyo - Bank of America, US-LIBOR
Bank of Tokyo - Bank of America, Yen-LIBOR



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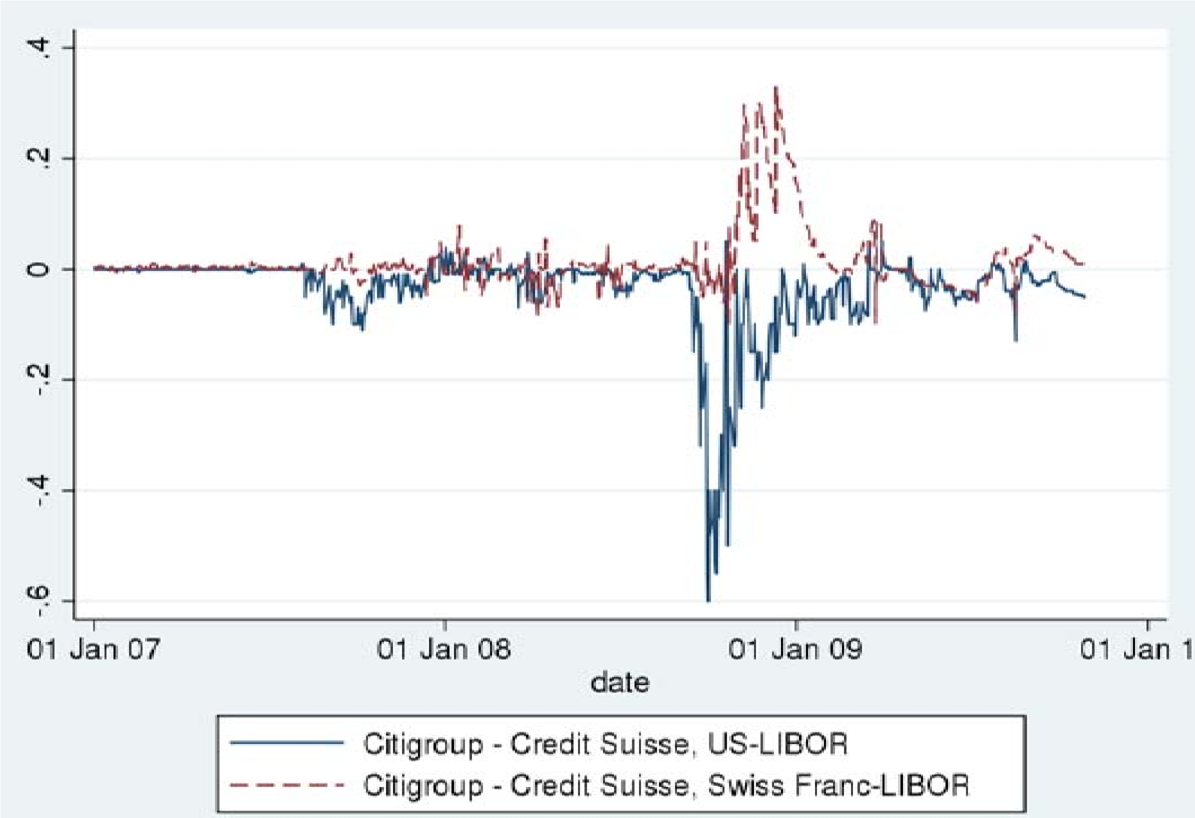
Barclays Bank - Deutsche Bank, Euro-LIBOR
Barclays Bank - Deutsche Bank, GBP-LIBOR



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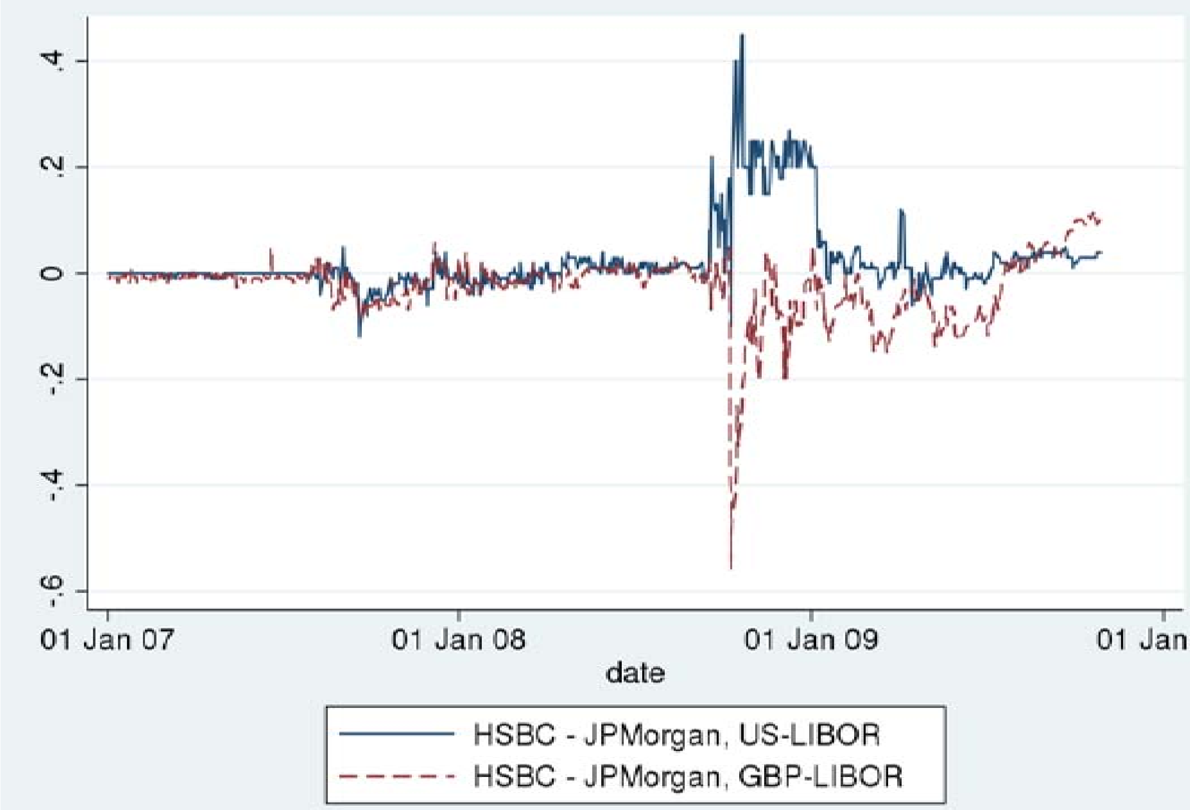
Citigroup - Credit Suisse, US-LIBOR
Citigroup - Credit Suisse, Swiss Franc-LIBOR



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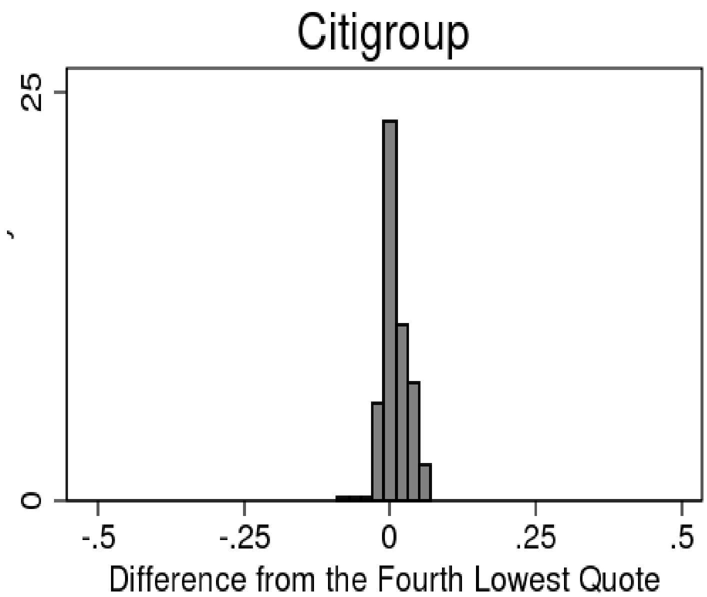
HSBC - JPMorgan, US-LIBOR
HSBC - JPMorgan, GBP-LIBOR

3. **The frequency with which at least certain Panel banks' LIBOR quotes "bunched" around the fourth-lowest quote of the day suggests manipulation.**

220. During the Class Period, the rates reported by certain panel banks—in particular, Citibank, BAC, and JPMorgan Chase—also demonstrated suspicious "bunching" around the fourth lowest quote submitted by the 16 banks to the BBA. Indeed, Citibank's and BAC's quotes often tended to be identical to the fourth-lowest quote for the day. Because the LIBOR calculation involved excluding the lowest (and highest) four reported rates every day, bunching around the fourth-lowest rate suggests the panel banks collectively depressed LIBOR by reporting the lowest possible rates that would not be excluded from the calculation of LIBOR on a given day.

221. Bunching among the panel banks' respective LIBOR quotes indicates the banks intended to report the same or similar rates, notwithstanding the banks' differing financial conditions, which, as detailed above, reasonably should have resulted in differing LIBOR quotes. Those discrepancies suggest the panel banks colluded to suppress LIBOR.

222. The following charts show the frequency with which the USD-LIBOR quotes submitted by the panel banks Citigroup, BAC, and JPMorgan Chase fell within a given percentage rate from the fourth-lowest quote. A negative difference means the reporting bank was below the fourth-lowest quote, and therefore its rate was not included in the daily LIBOR calculation, while zero difference means that the bank reported the fourth-lowest quote on a given day (either by itself or tied with other reporting banks).


Citigroup
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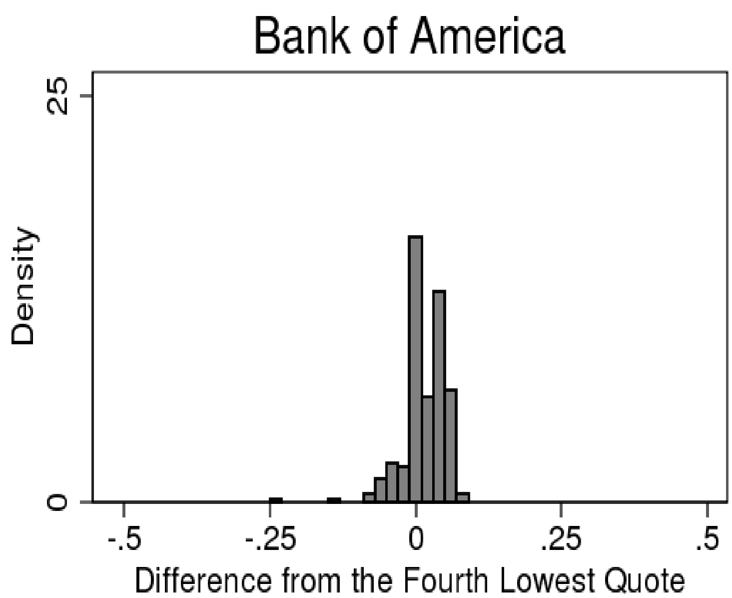
Difference from the Fourth Lowest Quote


Bank of America
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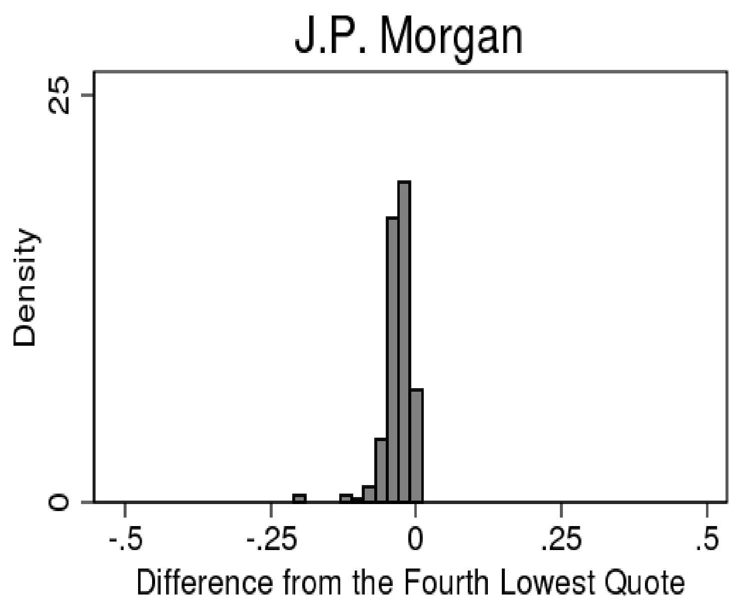
Difference from the Fourth Lowest Quote



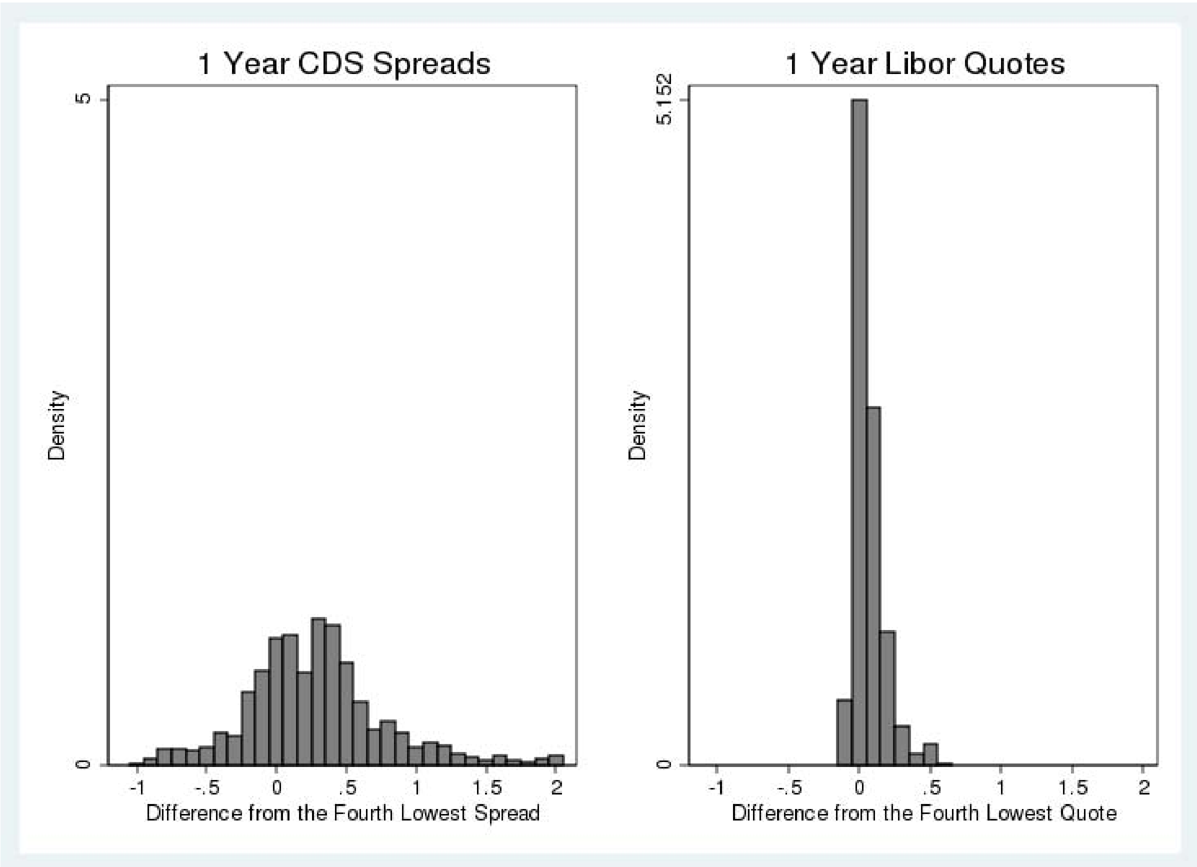
223. According to Snider and Youle, the fact that observed bunching occurred around the pivotal fourth-lowest reported rate reflected the reporting banks' intention to ensure the lowest borrowing rates were included in the calculation of USD-LIBOR (which includes only the fifth-lowest through the twelfth-lowest quotes).

224. In other words, banks that bunched their quotes around the fourth-lowest submission helped ensure the maximum downward manipulation of the resulting rate. Furthermore, that a panel bank reported one of the four lowest quotes (*i.e.*, quotes excluded from the ultimate LIBOR calculation) does not mean the bank did not also participate in the collusion.

225. Further demonstrating the aberrant nature of the observed bunching around the fourth-lowest quote, Snider and Youle noted "the intraday distribution of *other* measures of bank borrowing costs do not exhibit this bunching pattern." (Emphasis added).

226. Additionally, Snider and Youle detailed a discrepancy between USD-LIBOR panel banks' LIBOR quotes and their CDS spreads. The authors found that "with the intra-day variation of both Libor quotes and CDS spreads increasing from their historical levels," the CDS spreads' intra-day variation "grew considerably larger than that of Libor quotes."

227. Snider and Youle further observed that—as the graphs below, embodying a composite of all the banks, illustrate—during the Class Period the panel banks' quotes tended to "bunch" around the fourth-lowest quote much more commonly than those banks' CDS spreads "bunched" around the fourth-lowest spread. The authors concluded, "If banks were truthfully quoting their costs, . . . we would expect these distributions to be similar."



228. Given the method by which the BBA calculates LIBOR—discarding the highest and lowest reported rates and averaging the remainder—that strong concentration around the fourth-lowest rate is exactly what would occur if a number of banks sought in concert to depress LIBOR.

4. <u>That LIBOR diverged from its historical relationship with the Federal Reserve auction rate indicates suppression occurred.</u>

229. A comparison between LIBOR and the Federal Reserve auction rate further

suggests the panel banks artificially suppressed LIBOR during the Class Period. An April 16, 2008 *Wall Street Journal* article, for example, noted the Federal Reserve had recently auctioned off $50 billion in one-month loans to banks for an average annualized interest rate of 2.82%—10 basis points higher than the comparable USD-LIBOR. That differential would make no economic sense if the reported LIBOR was accurate, the *Journal* observed: "Because banks put up securities as collateral for the Fed loans, they should get them for a lower rate than Libor, which is riskier because it involves no collateral."

230. A subsequent *Journal* article raised further concerns about LIBOR's accuracy based on the comparison of one-month LIBOR with the rate for the 28-day Federal Reserve auction.[107] According to the *Journal*, because the Federal Reserve requires collateral:

> [B]anks should be able to pay a lower interest rate [to the Fed] than they do when they borrow from each other [*e.g.*, as ostensibly measured by LIBOR] because those loans are unsecured. It is the same reason why rates for a mortgage, which is secured by a house, are lower than those for credit cards, where the borrower doesn't put up any collateral. In other words, the rate for the Fed auction should be lower than Libor.

To the contrary, though, two days before the *Journal* article (September 22, 2008), the rate for the 28-day Fed facility was 3.75%—much higher than one-month USD-LIBOR, which was 3.18% that day[108] and 3.21% the next day.

5. <u>LIBOR's divergence from its historical correlation to overnight index swaps also suggests it was artificially suppressed during the Class Period.</u>

231. Yet another measure of LIBOR's aberrant behavior with respect to other measures of banks' borrowing costs during the Class Period is its observed deviation from the overnight-index swap ("OIS") rate. In his academic article analyzing LIBOR data for the period

[107] Carrick Mollenkamp, "Libor's Accuracy Becomes Issue Again," *The Wall Street Journal*, September 24, 2008.
[108] The *Journal* initially reported the one-month USD-LIBOR rate for that day as 3.19% but later noted the correct figure.

of the second half of 2007 and 2008, Justin Wong observed that between 2001 and July 2007, when the global credit crisis began, the spread between LIBOR and the OIS rate "averaged eleven basis points."[109] By July 2008, on the other hand, that gap approached 100 basis points, a figure significantly higher than the spread from a year prior, and by October 2008, "it peaked at 366 basis points." While the spread "receded somewhat in November 2008 to 209 basis points," that was still "far above the pre-crisis level." Wong's analysis provides further support for Plaintiffs' allegations that the panel banks suppressed LIBOR.

6. Expert Analysis Performed In Connection With These Proceedings Indicates LIBOR's Increase Following Expressions of Concern Over LIBOR's Viability Resulted from the Panel Banks' Reaction to Events Unrelated to Market Factors.

232. On April 17, 2008, the day after *The Wall Street Journal* initially reported on LIBOR's anomalous behavior and the BBA stated it would conduct an inquiry concerning LIBOR, there was a sudden jump in USD-LIBOR—the three-month borrowing rate hit 2.8175% that day, about eight basis points more than the previous day's rate of 2.735%.

233. Suspiciously, reported LIBOR for other currencies fell or remained relatively flat at the time USD-LIBOR rose, a sign that the latter was susceptible to manipulation.

234. A consulting expert engaged by the Plaintiffs in these coordinated proceedings conducted an analysis of the change in LIBOR on the single date of April 17, 2008. The analysis tested the hypothesis that if banks did not manipulate LIBOR, there would be no systematic changes in LIBOR expected on April 17, 2008 relative to typical changes on other days between January 5, 2000 to May 13, 2011, whereas if banks did manipulate LIBOR—and were responding to *The Wall Street Journal* article and BBA announcement—the reporting banks would be likely to reduce or abandon the manipulation immediately in response to these events.

[109] Justin T. Wong, "LIBOR Left in Limbo; A Call for More Reform," *North Carolina Banking Institute*, Vol. 13 p. 365-84 (Feb. 22, 2009).

An immediate reduction in LIBOR manipulation would result in an increase in LIBOR quotes by the member banks on April 17, 2008.

235. To conduct the analysis, the consulting expert ran a regression using the daily changes in LIBOR. Table 1 below shows the studies' results. As discussed above, LIBOR increased on April 17, 2008 at a statistically significant level. Moreover, the increase in composite LIBOR as well as of 11 of the 16 bank quotes were statistically significant. These findings were consistent with the hypothesis that the banks manipulated and suppressed LIBOR.

Table 1

Changes in LIBOR on April 17, 2008 in Percentage Points*

	Dependent variable	**Average change during non-suppression days**	**Change in the dependent variable on April 17, 2008 relative to non-suppression days' average**	**Statistical Significance at the 1-5% level of the April 17, 2008 move**
1	BBA LIBOR	-0.000371	0.0909*	5%
2	HSBC LIBOR	0.000154	0.1273**	1%
3	JPMC LIBOR	-0.000333	0.0872*	5%
4	BARCLAYS LIBOR	-0.000333	0.1072*	5%
5	WEST LB LIBOR	-0.000314	0.0971*	5%
6	RBS LIBOR	-0.000352	0.0921*	5%
7	RABOBANK LIBOR	-0.000364	0.0872*	5%
8	CITI LIBOR	-0.000344	0.1022*	5%

9	RBC LIBOR	0.002067	0.1021*	5%
10	UBS LIBOR	-0.000777	0.1021*	5%
11	NORIN LIBOR	-0.00038	0.0971*	5%
12	HBOS LIBOR	0.002467	0.1111*	5%

Statistical significance is assessed using a AR(3) model for the residuals

* While not shown here, an additional dummy variable is used to control for changes during the Relevant Period of August 8, 2007 to May 17, 2010.

236. An alternative hypothesis is that, in addition to reacting to the *Journal*, other confounding effects that are related to the risk of the banking sector or overall Market Fundamentals could have emerged on April 16, 2008 and April 17, 2008. This alternative hypothesis also predicts an increase in LIBOR. To test this alternative hypothesis, instead of looking at daily changes in LIBOR quotes, it is possible to examine daily changes in the difference between banks' LIBOR quotes and the Federal Reserve Eurodollar Deposit Rate (the "Spread"). If risk-related factors or Market Fundamentals played a role, they would affect both the banks' LIBOR quotes as well as the Federal Reserve's Eurodollar Deposit Rate. Thus, if this hypothesis is correct, one should not see any changes to the Spread on April 17, 2008, since these two effects should cancel out. However, if there were no risk-related news and only a reaction to *The Wall Street Journal* article and the BBA announcement played a major role, then only LIBOR would be affected, leaving Federal Reserve's Eurodollar Deposit Rate mostly unaffected. In this case, the Spread would again be expected to increase.

237. The test of this alternative hypothesis showed that the Spreads of all 16 panel banks increased on April 17, 2008, and, as shown in Table 2 below, 11 of the 16 changes were statistically significant at levels ranging from 1% to 5%. Once again, these finding were

consistent with the manipulation hypothesis and inconsistent with the hypothesis that other risk factors explained the April 17, 2008 shock to LIBOR.

Table 2

Changes in Spread (BBA LIBOR – Federal Reserve's Eurodollar Deposit Rate) on April 17, 2008 in Percentage Points*

	Dependent variable	**Average change in Spread during non-suppression days**	**Change in the dependent variable on April 17, 2008 relative to non-suppression days' average**	**Statistical Significance at the 1-5% level of the April 17, 2008 move**
1	BBA LIBOR Spread	-0.000078	0.0838	5%
2	HSBC LIBOR Spread	0.000508	0.1205	1%
3	JPMC LIBOR Spread	-0.000103	0.0803*	5%
4	BARCLAYS LIBOR Spread	-0.000067	0.1002**	1%
5	RBS LIBOR Spread	-0.0001	0.0851*	5%
6	TOKYO LIBOR Spread	-0.000092	0.0797*	5%
7	CITI LIBOR Spread	-0.00012	0.0953*	5%
8	CS LIBOR Spread	-0.000224	0.07*	5%
9	RBC LIBOR Spread	-0.000135	0.0951*	5%
10	UBS LIBOR Spread	-0.000172	0.095*	5%
11	NORIN LIBOR Spread	-0.000179	0.0903**	1%
12	HBOS LIBOR Spread	0	0.1007*	5%

Statistical significance is assessed using a AR(3) model for the residuals
* While not shown here, an additional dummy variable is used to control for changes during the Relevant Period of August 8, 2007 to May 17, 2010.

238. The conclusions of this study are consistent with the contemporaneous views expressed by high-level employees of various Defendant panel banks recounted above.

K. That At Least Some Panel Banks Faced Dire Financial Circumstances During the Class Period Further Renders Their Unduly Low LIBOR Quotes Striking.

239. The independent economic analyses performed in connection with these proceedings, whose findings are corroborated by the publicly available scholarly work detailed above, strongly indicate the panel banks' LIBOR quotes during the Class Period did not appropriately reflect those banks' actual borrowing costs at that time—and, indeed, that the panel banks *collectively* suppressed LIBOR. Further illustrating the striking discrepancy between the panel banks' submissions to the BBA and their actual borrowing costs, during 2008 and 2009 at least some of those banks' LIBOR quotes were too low in light of the dire financial circumstances the banks faced, as described in numerous news articles from the Class Period.

1. Citigroup

240. On November 21, 2008, *The Wall Street Journal* reported that Citigroup executives "began weighing the possibility of auctioning off pieces of the financial giant or even selling the company outright" after the company faced a plunging stock price. The article noted Citigroup executives and directors "rushing to bolster the confidence of investors, clients and employees" in response to uncertainty about Citigroup's exposure to risk concerning mortgage-related holdings.[110] Similarly, On November 24, 2008, *CNNMoney* observed:

241. If you combine opaque structured-finance products with current fair-value

[110] *See* http://online.wsj.com/article/SB122722907151946371.html?mod=testMod

accounting rules, almost none of the big banks are solvent because that system equates solvency with asset liquidity. So at this moment Citi isn't solvent. Some argue that liquidity, not solvency, is the problem. But in the end it doesn't matter. Fear will drive illiquidity to such a point that Citi could be rendered insolvent under the current fair-value accounting system.[111]

242. On January 20, 2009, *Bloomberg* reported that Citigroup "posted an $8.29 billion fourth-quarter loss, completing its worst year, and plans to split in two under Chief Executive Officer Vikram Pandit's plan to rebuild a capital base eroded by the credit crisis. The article further stated, "***The problems of Citi, Bank of America and others suggest the system is bankrupt***." (Emphasis added).[112]

2. RBS, Lloyds, and HBOS

243. An April 23, 2008 analyst report from Société Générale concluded, with respect to RBS's financial condition in the midst of its attempt to raise capital:

> Given the magnitude and change in direction in a mere eight weeks, we believe that management credibility has been tarnished. We also remain unconvinced that the capital being raised is in support of growth rather than merely to rebase and recapitalise a bank that overstretched itself at the wrong point in the cycle in its pursuit of an overpriced asset.
>
> * * *
>
> [I]n our eyes, RBS has not presented a rock solid business case that warrants investor support and the bank has left itself almost no capital headroom to support further material deterioration in either its assets or its major operating environments. We believe £16bn (7% core tier I ratio) would have provided a solid capital buffer.

The analysts also opined, "[W]e are not of the belief that all of RBS' problems are convincingly behind it." They further explained, "When faced with the facts and the events leading up to yesterday's request for a £12bn capital injection, we believe shareholders are being asked to

[111] *See* http://money.cnn.com/2008/11/21/news/companies/benner_citi.fortune/
[112] *See* http://www.bloomberg.com/apps/news?pid=21070001&sid=aS0yBnMR3USk

invest further in order to address an expensive mishap in H2 07 rather than capitalise on growth opportunities."

244. On October 14, 2008, *The Herald Scotland* reported a £37 billion injection of state capital into three leading banks, including RBS and HBOS. The article observed, "Without such near-nationalisations, . . . Royal Bank of Scotland and HBOS, would almost certainly have suffered a run on their remaining reserves and been plunged into insolvency. Their share prices could scarcely have taken much more of their recent hammering."[113]

245. On December 12, 2008, *Bloomberg* reported that shareholders approved HBOS's takeover by Lloyds TSB Group plc following bad-loan charges in 2008 rising to £5 billion and an increase in corporate delinquencies. The article also quoted analysts characterizing HBOS's loan portfolio as "'generally of a lower quality than its peers.'" *Bloomberg* further observed that HBOS suffered substantial losses on its bond investments, which totaled £2.2 billion, and losses on investments increased from £100 million to £800 million for the year.[114]

246. A January 20, 2009, analyst report from Société Générale stated: "We would note that given the 67% drop in the share price following [RBS]'s announcements yesterday [relating to capital restructuring due to greater-than-expected credit-market related write downs and bad debt impairments in Q4], the loss of confidence in the bank's ability to continue to operate as a private sector player and concern over the potential ineffectiveness of the Asset Protection Scheme may prompt the U.K. government to fully nationalise the bank. In this instance, the shares could have very limited value, if at all."[115]

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[113] *See* http://www.heraldscotland.com/reckless-banks-brought-this-financial-firestorm-down-upon-their-own-heads-1.891981.
[114] *See* http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a4BTqdgwhPTc&refer=uk.
[115] *See* January 20, 2009 Société Générale analyst report on Royal Bank of Scotland titled "Little value left for shareholders."

247. On March 7, 2009, *Bloomberg* reported that Lloyds "will cede control to [the British Government] in return for state guarantees covering 260 billion pounds ($367 billion) of risky assets." The article further observed that in September 2008, Lloyds agreed to buy HBOS for roughly £7.7 billion as the British Government sought to prevent HBOS from collapsing after credit markets froze. The HBOS loan book was described as "more toxic than anyone ever dreamed."[116]

248. On November 24, 2009, *Bloomberg* reported the Bank of England provided £62 billion ($102 billion) of "taxpayer-backed emergency financing" to RBS and HBOS at the height of the financial crisis in October 2008 and that "[t]he [financing] operations were kept secret until now to prevent unnerving markets." The Bank's Deputy Governor Paul Tucker was quoted as stating in evidence to the Treasury Committee in London that "'[h]ad we not done it, the cycle would have been a lot worse…[and that] [t]his was tough stuff, a classic lender of last resort operation.'"[117]

3. <u>WestLB</u>

249. A September 9, 2008 article in *Spiegel Online* reported WestLB was "heavily hit as a result of the US sub-prime crisis and the resulting credit crunch. Ill-advised speculation resulted in a 2007 loss of €1.6 billion -- leading the bank to the very brink of insolvency." The article reported that in early 2008, a special investment vehicle was set by WestLB's primary shareholders to "guarantee €5 billion worth of risky investments." The European Commissioner approved the public guarantee but demanded that the bank be "completely restructured to avoid falling afoul of competition regulations." The European Commissioner for Competition later

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[116] *See* http://www.businessday.com.au/business/lloyds-the-latest-uk-bank-to-be-rescued-20090308-8sfd.html.

[117] *See* http://www.bloomberg.com/apps/news?pid=21070001&sid=a9MjQj6MNTeA

warned that if WestLB did not significantly improve its restructuring package, Brussels would not approve the public assistance that European Union had already provided to the bank. Further, if that occurred, WestLB would have to pay back €12 billion to the EU.[118]

250. On November 24, 2009, *Bloomberg* reported that BNP Paribas SA said "[i]nvestors should buy the euro [ ] on speculation that capital will need to be repatriated to support German bank WestLB AG." Furthermore, two German regional savings bank groups that hold a majority stake in WestLB were "prepared to let the Dusseldorf-based lender become insolvent" and that "the prospect of insolvency may force state-owned banks and savings banks outside North Rhine-Westphalia, WestLB's home state, to contribute to capital injections." Moreover, WestLB needed "as much as 5 billion euros ($7.5 billion) in capital and may be shut by Nov. 30 unless a solution for its capital needs can be found."[119]

L. **The Panel Banks' Improper Activities Have Incited Governmental Investigations, Legal Proceedings, and Disciplinary Action Worldwide.**

251. As described in more detail below, investigations regarding LIBOR are ongoing in the United States, Switzerland, Japan, United Kingdom, Canada, the European Union, and Singapore by nine different governmental agencies, including the DOJ, the SEC, and the CFTC. Indeed, on February 27, 2012, the DOJ represented to the Court overseeing these multidistrict proceedings that the Justice Department "is conducting a criminal investigation into alleged manipulation of certain benchmark interest rates, including LIBORs of several currencies." The investigation represents an unprecedented joint investigation by both the criminal and antitrust divisions of the DOJ.

[118] *See* Anne Seith, Germany's WestLB under Attack from Brussels, SPIEGEL ONLINE, Sept. 9, 2008, http://www.spiegel.de/international/business/0,1518,druck-577142,00.html.

[119] See Matthew Brown, BNP Says Buy Euro on Speculation WestLB to Be Rescued (Update 1), BLOOMBERG, Nov. 24, 2009: http://www.bloomberg.com/apps/news?pid=21070001&sid=aI9ZPZShrjWI.

252. Authorities are attempting to determine, among other things, "whether banks whose funding costs were rising as the financial crisis intensified tried to mask that trend by submitting artificially low readings of their daily borrowing costs."[120] Though the proceedings are ongoing, several panel banks have admitted that regulators—including the DOJ, SEC, and CFTC—have targeted them in seeking information about potential misconduct.

253. Moreover, documents submitted in connection with legal proceedings in Canada and Singapore reveal that at least certain panel banks misreported their borrowing costs to artificially suppress Yen-LIBOR.

1. **News reports and the panel banks' regulatory filings indicate U.S. government and foreign regulatory bodies are engaged in expansive investigations of possible LIBOR manipulation.**

254. The first public revelation regarding government investigations into possible LIBOR manipulation occurred on March 15, 2011, when UBS disclosed in a Form 20-F (annual report) filed with the SEC that the bank had "received subpoenas" from the SEC, the CFTC, and the DOJ "in connection with investigations regarding submissions to the [BBA]." UBS stated it understood "that the investigations focus on whether there were improper attempts by UBS, either acting on its own or together with others, to manipulate LIBOR rates at certain times." The bank further disclosed that it had "received an order to provide information to the Japan Financial Supervisory Agency concerning similar matters." UBS stated it was "conducting an internal review" and was "cooperating with the investigations."

255. On March 16, 2011, the *Financial Times* reported that UBS, BAC, Citigroup, and Barclays received subpoenas from U.S. regulators "probing the setting of" USD-LIBOR "between 2006 and 2008." The *Times* further noted investigators had "demanded information

[120] David Enrich, Carrick Mollenkamp, & Jean Eaglesham, "U.S. Libor Probe Includes BofA, Citi, UBS." The Wall Street Journal, March 18, 2011

from" WestLB, and that the previous fall, "all 16 members of the committee that helped the [BBA] set the dollar Libor rate during 2006-08 received informal requests for information."[121]

256. The same day, *MarketWatch* similarly reported "[m]ultiple U.S. and European banks, which provide borrowing costs to calculate Libor every day, have been contacted by investigators," including the DOJ, the SEC, and the CFTC.[122]

257. The next day, *Bloomberg* reported that Barclays and Citigroup had received subpoenas from U.S. regulators and that panel banks WestLB, Lloyds, and BAC had been contacted by regulators. The article specified BAC had received subpoenas from the SEC and the DOJ.[123]

258. On March 23, 2011, *Bloomberg* revealed that Citigroup Inc., Deutsche Bank, BAC, and JPMorgan Chase were asked by U.S. regulators "to make employees available to testify as witnesses" in connection with the regulators' ongoing investigation.[124]

259. The next day, the *Financial Times* reported that Defendant Barclays was "emerging as a key focus of the US and U.K. regulatory probe into alleged rigging of [LIBOR]." According to the *Times*, investigators were "probing whether communications between the bank's traders and its treasury arm," which helps set LIBOR, "violated 'Chinese wall' rules that prevent information-sharing between different parts of the bank." The *Times* further stated investigators were "said to be looking at whether there was any improper influence on Barclays'

[121] Brooke Masters, Patrick Jenkins & Justin Baer, "Banks served subpoenas in Libor case," FT.com, available at http://www.ft.com/cms/s/0/52958d66-501f-11e0-9ad1-00144feab49a.html#axzz1sJNEDIiI, last accessed on April 17, 2012.
[122] Carrick Mollenkamp and David Enrich, "Banks Probed in Libor Manipulation Case," *MarketWatch*, March 16, 2011.
[123] Gavin Finch and Jon Menon, "Barclays, Citigroup Said to Be Subpoenaed in Libor Probe," *Bloomberg*, March 17, 2011.
[124] Joshua Gallu and Donal Griffin, "Libor Probe Spurs Witness Call-up at Citigroup, Deutsche Bank," *Bloomberg*, March 23, 2011.

submissions" during 2006-2008 for the BBA's daily survey used to set LIBOR.[125]

260. Additional information regarding the regulatory probes emerged during the next few months, including revelations about other banks' possible—or actual—misconduct.

261. In an "Interim Management Statement" filed on April 27, 2011, for example, Barclays stated it was "cooperating with" the investigations by the U.K. Financial Services Authority, the CFTC, the SEC, and the DOJ "relating to certain past submissions made by Barclays to the [BBA], which sets LIBOR rates."

262. RBS similarly disclosed, in a Form 6-K filed with the SEC on May 6, 2011, the bank was "co-operating with" the investigations being conducted by the CFTC, the SEC, and the European Commission "into the submission of various LIBOR rates by relevant panel banks."

263. Soon after, on May 16, 2011, Lloyds disclosed that it too "had received requests for information as part of the Libor investigation and that it was co-operating with regulators, including the [CFTC] and the European Commission."[126] Britain's *Daily Telegraph* further reported that Defendant HBOS, which merged with Lloyds TSB in January 2009 to form Lloyds Banking Group, "was the main target given its near collapse in late 2008 as it lost access to wholesale funding markets."

264. On May 23, 2011, the *Telegraph* reported that the Federal Bureau of Investigation ("FBI") was working with regulators in connection with the LIBOR investigations, and the FBI's British counterpart, the Serious Fraud Office, "revealed it is also taking an active interest."

265. In a Form 6-K filed with the SEC on July 26, 2011, UBS disclosed that it had

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[125] Brooke Masters and Megan Murphy, "Barclays at centre of Libor inquiry," FT.com, March 24, 2011, available at: http://www.ft.com/intl/cms/s/0/1c3228f6-5646-11e0-82aa-00144feab49a.html#axzz1sJNEDIiI, last accessed on April 17, 2012.

[126] Harry Wilson, "Lloyds Banking Group in Libor investigation," *The Daily Telegraph*, May 17, 2011.

"been granted conditional leniency or conditional immunity from authorities in certain jurisdictions, including the Antitrust Division of the DOJ, in connection with potential antitrust or competition law violations related to submissions for Yen LIBOR and Euroyen TIBOR (Tokyo Interbank Offered Rate)." Accordingly, the company continued, it would "not be subject to prosecutions, fines or other sanctions for antitrust or competition law violations in connection with the matters [UBS] reported to those authorities, subject to [UBS's] continuing cooperation." The conditional leniency UBS received derives from the Antitrust Criminal Penalties Enhancement and Reform Act and the DOJ's Corporate Leniency Policy, under which the DOJ only grants leniency to corporations reporting *actual illegal activity*. UBS later disclosed (on February 7, 2012) that the Swiss Competition Commission had granted the bank conditional immunity regarding submissions for Yen LIBOR, TIBOR, and Swiss franc LIBOR.

266. Similar to the other panel banks discussed above, HSBC, in an interim report filed on August 1, 2011, disclosed that it and/or its subsidiaries had "received requests" from various regulators to provide information and were "cooperating with their enquiries."

267. On or about the same day, Barclays—which several months earlier had referenced its "cooperation" with governmental entities investigating potential misconduct relating to LIBOR—specified the investigations involved "submissions made by Barclays" and other LIBOR panel members. Barclays further stated it was engaged in discussions with those authorities about potential resolution of these matters before proceedings are brought against the bank.

268. On September 7, 2011, the *Financial Times* reported that as part of their LIBOR investigation, the DOJ and the CFTC—in assessing whether banks violated the Commodity Exchange Act, which can result in criminal liability—were examining "whether traders placed

bets on future yen and dollar rates and colluded with bank treasury departments, who help set the Libor index, to move the rates in their direction," as well as "whether some banks lowballed their Libor submissions to make themselves appear stronger."[127]

269. On October 19, 2011, *The Wall Street Journal* reported that the European Commission "seized documents from several major banks" the previous day, "marking the escalation of a worldwide law-enforcement probe" regarding the Euro Interbank Offered Rate, or Euribor—a benchmark, set by more than 40 banks, used to determine interest rates on trillions of euros' worth of euro-denominated loans and debt instruments. The Euribor inquiry, the *Journal* explained, constitutes "an offshoot" of the broader LIBOR investigation that had been ongoing for more than a year. According to the *Journal*, while the list of financial firms raided by the European Commission was not available, people familiar with the situation had counted "a large French bank and a large German bank" among the targets, and the coordinated raids "occurred in London and other European cities."

270. On October 31, 2011, the *Financial News* observed that "[a]n investigation into price fixing, first ordered by the [SEC] in 2008, focused on whether banks, including UBS, Citigroup, and Bank of America, had been quoting deliberately low rates."[128]

271. On December 9, 2011, *Law360* reported that the Japanese Securities and Exchange Surveillance Commission ("SESC") alleged that Citigroup Global Markets Japan Inc. and UBS Securities Japan Ltd. "employed staffers who attempted to influence" TIBOR "to gain advantage on derivative trades." The SESC recommended that the Japanese prime minister and

[127] Brooke Masters and Kara Scannell, "Libor inquiry looks at criminal angle," FT.com, September 7, 2011, available at: http://www.ft.com/cms/s/0/c8ed4248-d962-11e0-b52f-00144feabdc0.html#axzz1sRxAdyPS, last accessed on April 18, 2012.

[128] Tom Osborn, "Is Libor in its death throes?" *Financial News*, October 31, 2011.

the head of Japan's Financial Services Agency ("JFSA") take action against the companies. The Commission specified that Citigroup's head of G-10 rates and a Citigroup trader, as well as a UBS trader, were involved in the misconduct, further stating, "[t]he actions of Director A and Trader B are acknowledged to be seriously unjust and malicious, and could undermine the fairness of the markets." Moreover, the Commission added, "[i]n spite of recognizing these actions, the president and CEO . . . who was also responsible for the G-10 rates, overlooked these actions and the company did not take appropriate measures, therefore, the company's internal control system is acknowledged to have a serious problem."[129] *Law360* reported that the SESC released "a similar statement" about UBS's alleged conduct.

272. Citigroup and UBS did not deny the SESC's findings. A Citigroup spokesperson stated, "Citigroup Global Markets Japan takes the matter very seriously and sincerely apologizes to clients and all parties concerned for the issues that led to the recommendation. The company has started working diligently to address the issues raised." A UBS spokesperson similarly stated the bank was taking the findings "very seriously" and had been "working closely with" the SESC and the JFSA "to ensure all issues are fully addressed and resolved." She added, "We have taken appropriate personnel action against the employee involved in the conduct at issue."

273. Citigroup later disclosed that on December 16, 2011, the JFSA took administrative action against Citigroup Global Markets Japan, Inc. ("CGMJ") for, among other things, certain communications made by two CGMJ traders about the Euroyen Tokyo InterBank Offered Rate ("TIBOR"). The JFSA issued a business improvement order and suspended CGMJ's trading in derivatives related to Yen-LIBOR, as well as Euroyen and Yen-TIBOR from January 10 to January 23, 2012. On the same day, the JFSA also took administrative action

[129] Juan Carlos Rodriguez, "Japan Accuses Citi, UBS Of Market Trickery," *Law360*, December 9, 2011.

against Citibank Japan Ltd. for conduct arising out of Citibank Japan's retail business and also noted that the communications made by the CGMJ traders to employees of Citibank Japan about Euroyen TIBOR had not been properly reported to Citibank Japan's management team.

274. UBS likewise recently revealed further details regarding the Japanese regulators' findings and the resulting disciplinary action. Specifically, the bank announced that on December 16, 2011, the JFSA commenced an administrative action against UBS Securities Japan Ltd. ("UBS Securities Japan") based on findings by the SESC that:

> (i) a trader of UBS Securities Japan engaged in inappropriate conduct relating to Euroyen TIBOR and Yen LIBOR, including approaching UBS AG, Tokyo Branch, and other banks to ask them to submit TIBOR rates taking into account requests from the trader for the purpose of benefiting trading positions; and (ii) serious problems in the internal controls of UBS Securities Japan resulted in its failure to detect this conduct.

Based on those findings, the JFSA "issued a Business Suspension Order requiring UBS Securities Japan to suspend trading in derivatives transactions related to Yen LIBOR and Euroyen TIBOR" from January 10 to January 16, 2012 (excluding transactions required to perform existing contracts). The JFSA also issued a "Business Improvement Order" requiring UBS Securities Japan to enhance "compliance with its legal and regulatory obligations" and to establish a "control framework" designed to prevent similar improper conduct.

275. *The Wall Street Journal* has since cited people familiar with the UBS matter as identifying the trader as Thomas Hayes, who joined UBS Securities Japan in 2006 "and traded products linked to the pricing of short-term yen-denominated borrowings"; he worked at UBS for about three years.[130]

276. In the same article, the *Journal* more broadly reported that investigators in the

[130] Jean Eaglesham, Atsuko Fukase, & Sam Holmes, "Rate Probe Keys On Traders: Investigators Suspect Employees at Some Banks Tried to Manipulate Rates," *The Wall Street Journal*, February 7, 2012.

U.S. and foreign LIBOR probes "are focusing on a small number of traders suspected of trying to influence other bank employees to manipulate the rates."

277. Other news accounts in recent months have confirmed—based at least in part on information from people familiar with the ongoing investigations—that investigators are examining potential improper collusion by traders and bankers to manipulate LIBOR or other rates. On February 3, 2012, for instance, Credit Suisse disclosed that the Swiss Competition Commission commenced an investigation involving twelve banks and certain other financial intermediaries, including Credit Suisse, concerning alleged collusive behavior among traders to affect the bid ask spread for derivatives tied to the LIBOR and TIBOR reference rates fixed with respect to certain currencies, and collusive agreements to influence these rates.

278. Additionally, on February 14, 2012, *Bloomberg* reported that two people with knowledge of the ongoing LIBOR probe said global regulators "have exposed flaws in banks' internal controls that may have allowed traders to manipulate interest rates around the world." The same people, who were not identified by name (as they were not authorized to speak publicly about those matters), stated investigators also had "received e-mail evidence of potential collusion" between firms setting LIBOR. Those sources further noted Britain's Financial Services Authority was "probing whether banks' proprietary-trading desks exploited information they had about the direction of Libor to trade interest-rate derivatives, potentially defrauding their firms' counterparties."[131]

279. *Bloomberg* further reported that RBS had "dismissed at least four employees in connection with the probes," and Citigroup and Deutsche Bank "also have dismissed, put on leave or suspended traders as part of the investigations."

[131] Lindsay Fortado and Joshua Gallu, "Libor Probe Said to Expose Collusion, Lack of Internal Controls," *Bloomberg*, February 14, 2012.

280. *Bloomberg* also reported that European Union antitrust regulators are also investigating whether banks effectively formed a global cartel and coordinated how to report borrowing costs between 2006 and 2008.

281. In March 2012, the Monetary Authority of Singapore disclosed that it has been approached by regulators in other countries to help in investigations over the possible manipulation of interbank interest rates.[132]

282. *Bloomberg* interviewed money-market traders in March 2012, who said that staff responsible for panel banks' LIBOR submissions "regularly discussed where to set the measure with traders sitting near them, interdealer brokers, and counterparts at rival banks."[133] "The talks became common practice after money markets froze in 2007. . . . Traders interviewed said there were no rules stopping talks between employees, or guidelines on how the rate should be set." The "BBA says only a bank's Treasurer or other nominated individual can make a submission, but a trader at one firm [told Bloomberg] that a large number of employees had access to the software used to make the bank's submissions and could overwrite other's figures." *The Telegraph* reported that "senior bankers privately admit it is easy for banks to fix Libor at rates that are favorable to their own interests, as the task of setting the rate is often undertaken by relatively junior employees."[134]

283. According to the *Daily Mail*, investigations by the SEC, Britain's Financial Services Authority, the Swiss Competition Commission, and regulators in Japan focus on three concerns: First, whether banks artificially suppressed LIBOR during the financial crisis, making

[132] *Business Times*, March 9, 2012.
[133] Liam Vaughan, Gavin Finch and Jesse Westbrook, "Life as Libor Traders Knew It Seen as Abusive," *Bloomberg*, March 2, 2012.
[134] Jamie Dunkley and Harry Wilson, "UBS accused of manipulating Libor," *The Telegraph*, March 15, 2011.

banks appear more secure than they actually were; second, whether bankers setting LIBOR leaked their data to traders before officially submitting the banks' LIBOR quotes to the BBA; third, whether traders at the banks, and at other organizations (such as hedge funds), may have tried to influence LIBOR by making suggestions or demands on the bankers providing LIBOR quotes.

284. A July 20, 2012 CNNMoney article posited "Barclays the biggest Libor liar? No, that may have been Citi."[135] The article observed that Citigroup CEO Vikram Pandit recently had "told analysts not to use Barclays' $450 million Libor settlement as a guidepost for what his firm might have to pay." Citing a study showing that "on average Citi understated its borrow[ing] costs by an average of 0.12 percentage points from August 2007 to August 2008," which was "50% more than the 0.08 percentage points that Barclays under report[ed] its own borrowing costs"—the article suggested Citigroup "might end up paying much more" than Barclays did.

285. On July 27, 2012, Reuters reported Lloyds Banking Group had "received subpoenas from government agencies" investigating the LIBOR scandal, which the bank disclosed in its 2011 annual report.[136]

286. On August 2, 2012, Bank of America disclosed in an SEC filing that it had received subpoenas and requests for information from the DOJ, CFTC, and FSA concerning "submissions made by panel banks in connection with the setting of London interbank offered rates and European and other interbank offered rates."

287. The press reported in August, 2012, that Bank of Tokyo-Mitsubishi UFJ (BTMU) suspended two London-based traders in connection with LIBOR as well as a third London-based

[135] Stephen Gandel, "Barclays the biggest Libor liar? No, that may have been Citi," *CNNMoney*, July 20, 2012

[136] Matt Scuffham & Steve Slater, "British bank Lloyds gets Libor subpoenas," Reuters, July 24, 2012

banker who was in charge of submitting LIBOR rates.[137]

288. On September 5, 2012, the CEO of Société Générale, Frederic Oudea, stated the bank is cooperating with U.S. authorities in connection with their LIBOR investigation, while the bank continues its own internal probe. On February 12, 2013, Mr. Oudea said Société Générale is "carrying on with cooperating with the regulators" on the LIBOR investigation.[138] Mr. Ouda said that Société Générale's general provision of $404 million for litigation issues in the fourth quarter of 2012 may also cover risks for possible LIBOR fines.

289. According to a press report in October 2012, Bank of America, Bank of Tokyo Mitsubishi UFJ, Credit Suisse, Lloyds Banking Group, Rabobank, Royal Bank of Canada, Société Générale, Norinchukin Bank and West LB have received subpoenas from the New York and Connecticut Attorneys General, who are investigating "whether the banks participated in any schemes to rig the interbank offered rate, a person familiar with the matter said."[139] According to a source, "the subpoenas seek communication between executives related to possible collusion and other conduct that may have played a role in alleged rate manipulation, among other information."[140] The press reported that the financial groups join Deutsche Bank, Citigroup, JPMorgan Chase, Royal Bank of Scotland, Barclays, HSBC and UBS to increase the number of banks under examination by the two state prosecutors to 16.

290. According to a press report in February 2013, a person with knowledge of the probe said that Rabobank is under scrutiny for alleged attempts to manipulate sterling Libor, dollar Libor, Japanese yen Libor and Euribor in its London, New York, Tokyo, Singapore and

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137 http://www.ibtimes.co.uk/articles/371952/20120809/bank-tokyo-mitsubishi-ufj-btmu-libor-fixing.htm

138 http://www.bloomberg.com/news/2013-02-13/socgen-still-cooperating-with-authorities-on-libor-chief-says.html

139 http://www.ft.com/intl/cms/s/0/6f4e7960-1f1a-11e2-be82-00144feabdc0.html#axzz2TOQy1B9g

140 http://www.theglobeandmail.com/report-on-business/international-business/us-business/group-of-banks-subpoenaed-in-us-libor-probe/article4483025/

Hong Kong offices.[141] "It's likely that an assessment of the facts and circumstances will lead to a settlement," Rabobank said in a statement on February 26, 2013. The bank has said it has been subpoenaed or asked for information by watchdogs in eight jurisdictions, including the European Union, Japan, Hong Kong, Singapore, Switzerland as well as the Netherlands, and is cooperating. According to the press report, the "probe has intensified in recent months, with officials from the DOJ and U.S. Federal Bureau of Investigation traveling to London to interview current and former Rabobank employees, two of the people [with knowledge of the probe] said. Those talks have ended and the regulators are now in talks with the bank's lawyers over the details of a settlement, the people added." According to the press report, "the penalty, which may come as soon as May, is likely to be between the 290 million pounds ($440 million) Barclays Plc (BARC) paid in June and the $612 million Royal Bank of Scotland Group Plc paid this month."

291. According to press reports in April 2013, Deutsche Bank dismissed two traders in 2011 in connection with its investigation into whether the Libor benchmark rates were manipulated.[142] Deutsche Bank has suspended or dismissed seven employees involved in setting benchmark rates as part of its own investigations.[143] On April 18, 2013, press reports indicated that "Deutsche Bank has already made provisions for possible fines in the Libor case, sources close to the bank have told Reuters." *Id.* "Deutsche Bank has set aside about €500m to cover possible fines for the alleged manipulation of Libor interest rates after the German lender last week increased provisions to reflect potential antitrust charges."[144]

292. On March 20, 2013, European Competition Commissioner Joaquin Almunia

[141] http://www.bloomberg.com/news/2013-02-26/rabobank-faces-libor-rigging-fine-of-440-million-plus.html
[142] http://www.ft.com/intl/cms/s/0/9cbef274-706b-11e2-ab31-00144feab49a.html#axzz2RDQCKw8z
[143] http://www.reuters.com/article/2013/04/18/us-deutschebank-libor-report-idUSBRE93H0LN20130418
[144] http://www.ft.com/intl/cms/s/0/9f0bc792-963a-11e2-b8dd-00144feabdc0.html#axzz2SlF1hGs1

referred in a speech to "the so-called Libor scandal, where we suspect the existence of cartels involving a number of banks and brokers."[145] The European Commission defines a cartel as a "group of similar, independent companies which join together to fix prices, to limit production or to share markets or customers between them." It says that cartel members decline to compete with each other and instead "rely on each others' agreed course of action, which reduces their incentives to provide new or better products and services at competitive prices."[146] According to press reports, the European Commission is close to concluding several investigations it has been running into whether banks operated cartels to set Libor and other interbank rates, and may issue its first decision by the end of 2013.[147]

2. Evidence disclosed to date in the Canadian and Singapore proceedings confirms that certain panel banks conspired to manipulate Yen-LIBOR as part of the global conspiracy.

Canadian Action

293. In the Canadian action, Brian Elliott, a Competition Law Officer in the Criminal Matters Branch of the Competition Bureau, submitted an affidavit in May 2011 (the "May 2011 Elliott Affidavit") in support of "an Ex Parte Application for Orders to Produce Records Pursuant to Section 11 of the Competition Act and for Sealing Orders" in the Court of Ontario, Superior Court of Justice, East Region. Specifically, the May 2011 Elliott Affidavit sought orders requiring HSBC Bank Canada, Royal Bank of Scotland N.V., Canada Branch, Deutsche Bank, J.P. Morgan Bank Canada, and Citibank Canada (referenced collectively in the Affidavit as the "Participant Banks") to produce documents in connection with an inquiry concerning whether those banks conspired to "enhance unreasonably the price of interest rate derivatives

[145] http://europa.eu/rapid/press-release_SPEECH-13-243_en.htm
[146] http://www.ifre.com/ec-nears-ruling-on-libor-cartel/21078358.article
[147] http://www.law360.com/articles/432597/eu-antitrust-chief-expects-first-libor-case-in-2013

from 2007 to March 11, 2010; to prevent or lessen, unduly, competition in the purchase, sale or supply of interest derivatives from 2007 to March 11, 2010; to restrain or injure competition unduly from 2007 to March 11, 2010; and to fix, maintain, increase or control the price for the supply of interest rate derivatives from March 12, 2010 to June 25, 2010."

294. The May 2011 Elliott Affidavit further states the Competition Bureau "became aware of this matter" after one of the banks (referenced in the affidavit as the "Cooperating Party") "approached the Bureau pursuant to the Immunity Program" and, in connection with that bank's application for immunity, its counsel "orally proffered information on the Alleged Offences" to officers of the Competition Bureau on numerous occasions in April and May 2011. Furthermore, according to the Affidavit, counsel for the Cooperating Party "stated that they have conducted an internal investigation of the Cooperating Party that included interviews of employees of the Cooperating Party who had knowledge of or participated in the conduct in question, as well as a review of relevant internal documents." The Affidavit also notes that on May 17, 2011, counsel for the Cooperating Party provided the Competition Bureau with "electronic records," which Elliot "believe[s] to be records of some of the communications involving the Cooperating Party that were read out as part of the orally proffered information by counsel for the Cooperating Party." The press has reported that UBS was the "Cooperating Party" referred to in the Elliott Affidavits.

295. The Affidavit recounted that, the Cooperating Party's counsel, during the Class Period the Participant Banks—at times "facilitated" by "Cash Brokers"—"entered into agreements to submit artificially high or artificially low London Inter-Bank Offered Rate ('LIBOR') submissions in order to impact the Yen LIBOR interest rates published by the [BBA]." Those entities engaged in that misconduct to "adjust[] the prices of financial

instruments that use Yen LIBOR rates as a basis." The Affidavit further states the Cooperating Party's counsel "indicated the Participant Banks submitted rates consistent with the agreements and were able to move Yen LIBOR rates to the overall net benefit of the Participants."

296. More specifically, counsel proffered that, during the Class Period, the Participant Banks "communicated with each other and through the Cash Brokers to form agreements to fix the setting of Yen LIBOR," which "was done for the purpose of benefiting trading positions, held by the Participant Banks, on IRDs [interest rate derivatives]." By manipulating Yen LIBOR, the Affidavit continues, "the Participant Banks affected all IRDs that use Yen LIBOR as a basis for their price." The misconduct was carried out "through e-mails and Bloomberg instant messages between IRD traders at the Participant Banks and employees of Cash Brokers (who had influence in the setting of Yen LIBOR rates)." The Affidavit details:

> IRD traders at the Participant Banks communicated with each other their desire to see a higher or lower Yen LIBOR to aid their trading position(s). These requests for changes in Yen LIBOR were often initiated by one trader and subsequently acknowledged by the trader to whom the communication was sent. The information provided by counsel for the Cooperating Party showed that the traders at Participant Banks would indicate their intention to, or that they had already done so, communicate internally to their colleagues who were involved in submitting rates for Yen LIBOR. The traders would then communicate to each other confirming that the agreed up rates were submitted. However, not all attempts to affect LIBOR submissions were successful.
>
> The Cash Brokers were asked by IRD traders at the Participant Banks to use their influence with Yen LIBOR submitters to affect what rates were submitted by other Yen LIBOR panel banks, including the Participant Banks.

297. The Affidavit indicates the Cooperating Party's counsel further proffered that at least one of the Cooperating Party's IRD traders ("Trader A" or "Trader B") communicated with an IRD trader at HSBC, Deutsche Bank, RBS, JPMorgan (two traders), and Citibank. In that regard, the Affidavit specifies:

Trader A communicated his trading positions, his desire for a certain movement in Yen LIBOR and instructions for the HSBC trader to get HSBC to make Yen LIBOR submissions consistent with his wishes. Attempts through the HSBC trader to influence Yen LIBOR were not always successful. Trader A also communicated his desire for a certain movement in the Yen LIBOR rate with the Cash Brokers. He instructed them to influence the Yen LIBOR submitters of HSBC. The Cash Brokers acknowledged making these attempts.

Trader A communicated his trading positions, his desire for certain movement in Yen LIBOR and asked for the Deutsche IRD trader's assistance to get Deutsche to make Yen LIBOR submissions consistent with his wishes. The Deutsche IRD trader also shared his trading positions with Trader A. The Deutsche IRD trader acknowledged these requests. Trader A also aligned his trading positions with the Deutsche IRD trader to align their interests in respect of Yen LIBOR. The Deutsche IRD trader communicated with Trader A considerably during the period of time, mentioned previously, when Trader A told a Cash Broker of a plan involving the Cooperating Party, HSBC and Deutsche to change Yen LIBOR in a staggered and coordinated fashion by the Cooperating Party, HSBC and Deutsche. Not all attempts to change the LIBOR rate were successful.

Trader A explained to RBS IRD trader who his collusive contacts were and how he had and was going to manipulate Yen LIBOR. Trader A also communicated his trading positions, his desire for certain movement in Yen LIBOR and gave instructions for the RBS IRD trader to get RBS to make Yen LIBOR submissions consistent with Trader A's wishes. The RBS IRD trader acknowledged these communications and confirmed that he would follow through. Trader A and the RBS IRD trader also entered into transactions that aligned their trading interest in regards to Yen LIBOR. Trader A also communicated to another RBS IRD trader his trading positions, his desire for a certain movement in Yen LIBOR and instructions to get RBS to make Yen LIBOR submissions consistent with his wishes. The second RBS IRD trader agreed to do this.

Trader A communicated his trading positions, his desire for a certain movement in Yen LIBOR and gave instructions for them [two JPM IRD traders] to get JPMorgan to make Yen LIBOR submissions consistent with his wishes. Trader A also asked if the IRD traders at JPMorgan required certain Yen LIBOR submissions to aid their trading positions. The JPMorgan IRD traders acknowledged these requests and said that they would act on them. On another occasion, one of the JPMorgan IRD traders asked Trader A for a certain Yen LIBOR submission, which Trader A agreed to help with. Trader A admitted to an IRD trader at RBS that he colluded with IRD traders at JPMorgan.

> Trader B of the Cooperating Party communicated with an IRD trader at Citi. They discussed their trading positions, advanced knowledge of Yen LIBOR submissions by their banks and others, and aligned their trading positions. They also acknowledged efforts to get their banks to submit the rates they wanted.

298. On May 18, 2011, the Ontario Superior Court signed the orders directing the production of the records sought by the May 2011 Elliott Affidavit. But, to the OTC Plaintiffs' knowledge, the Affidavit was not publicly available until February 2012.

299. Elliott submitted another affidavit in June 2011 (the "June 2011 Elliott Affidavit"), which sought an order requiring ICAP Capital Markets (Canada) Inc., believed to be one of the "Cash Brokers" referenced in the May 2011 Elliott Affidavit, to "produce records in the possession of its affiliates, ICAP PLC and ICAP New Zealand Ltd." The June 2011 Elliott Affidavit primarily detailed communications between "Trader A" (an IRD trader) of the previously-referenced "Cooperating Party" and an ICAP broker (referenced in the June 2011 Elliott Affidavit as "Broker X") during the Class Period.

300. The Affidavit specifies that Trader A "discussed his current trading positions with Broker X and where he would like to see various maturities of Yen LIBOR move." Trader A "asked Broker X for Yen LIBOR submissions that were advantageous to Trader A's trading positions," and Broker X, in turn, "acknowledged these requests and advised Trader A about his efforts to make them happen." The Affidavit further states:

> Counsel for the Cooperating Party has proffered that the expectation was for Broker X, directly or through other brokers at ICAP, to influence the Yen LIBOR submissions of Panel Banks. Broker X communicated to Trader A his efforts to get brokers at ICAP in London to influence Yen LIBOR Panel Banks in line with Trader A's requests. The efforts of Broker X included contacting a broker at ICAP in London who issued daily LIBOR expectations to the market. Trader A also communicated to Broker X his dealings with traders at other Participant Banks and a broker at another Cash Broker. Not all efforts to influence Yen LIBOR panel banks were successful. Broker X had additional discussions around the

> setting of Yen LIBOR with another trader of the Cooperating Party ("Trader B").

301. On June 14, 2011, the Ontario Superior Court issued an order allowing the document requests concerning ICAP.

Singapore Proceedings

302. More information about the collusive behavior of Yen LIBOR panel banks was revealed in a Singapore wrongful termination lawsuit. In a pending legal action in Singapore's High Court, Tan Chi Min, former head of delta trading for RBS's global banking and markets division in Singapore (who worked for RBS from August 12, 2006 to November 9, 2011), alleges in his Writ of Summons and Statement of Claim that the bank condoned collusion between its traders and LIBOR rate-setters to set LIBOR at levels to maximize profits. In the same filing, Tan stated RBS commenced an internal probe following inquiries by European and U.S. authorities about potential LIBOR manipulation.

303. Tan—whom RBS terminated, asserting he engaged in "gross misconduct"—alleges that RBS's internal investigations "were intended to create the impression that such conduct was the conduct not of the defendant itself but the conduct of specific employees who the defendant has sought to make scapegoats through summary dismissals." Tan asserted RBS's rate setters took "into account the views of various employees before submitting a rate to the appropriate rate setting body." Tan further alleges that it was "part of his responsibilities to provide input and submit requests to the rate setter and there is no regulation, policy, guideline or law that he has infringed in doing this," and that "it was common practice among [RBS]'s senior employees to make requests to [RBS]'s rate setters as to the appropriate LIBOR rate." Those requests, Tan specified, "were made by, among others, Neil Danziger, Jezri Mohideen (a senior manager), Robert Brennan (a senior manager), Kevin Liddy (a senior manager) and Jeremy

Martin," and the practice "was known to other members of [RBS]'s senior management including Scott Nygaard, Todd Morakis and Lee Knight." Tan added that RBS employees "also took requests from clients (such as Brevan Howard) in relation to the fixing of LIBOR."

304. In his complaint, however, Tan alleged that he could not have influenced the rate on his own. He also stated it was "common practice" among RBS's senior employees to make requests as to the appropriate LIBOR quote.

305. Indeed, in responding to Tan's allegations, RBS admitted he had tried to improperly influence RBS rate-setters from 2007 to 2011 to submit LIBOR quotes at levels that would benefit him.

306. In subsequent filings with the Singapore High Court, Tan claims that RBS "interest-rate traders were seated with one of the main rate setters in its London office to share information, and discussed rates on conference calls," according to *Businessweek*.[148] Tan also claims that RBS's head of compliance sent an email to Tan's manager indicating that it was acceptable for a trader to request specific swap-offer rates from rate setters. According to *Businessweek*, Tan also asserts in his filing that he was told by his manager that "the practice of requesting to change the rate Libor is common in every rate setting environment in the banking industry."

3. <u>Numerous employees from various financial institutions, including employees of the panel banks and their affiliates, have been accused of improper conduct related to LIBOR.</u>

307. Other individuals employed by the panel banks and their affiliates who have engaged in the illegal communications and conduct among the panel banks to report artificially low LIBOR quotes include, but are not limited to, the following. These individuals were not

[148] Andrea Tan, "RBS rate Traders Sat With Libor Setter, Fired Banker Says," *Businessweek*, March 27, 2012.

randomly selected from the panel banks but are people who have been identified by the press or government agencies as the targets of the world-wide government investigations.

a. Yvan Ducrot was the Co-head of UBS's rates business. According to an article in *Citywire*, he was suspended by UBS in connection with international probes.[149]

b. Holger Seger was the global head of short-term interest rates trading at UBS. According to an article in *Citywire*, Mr. Seger was suspended by UBS in connection with international probes and left his position at UBS in April 2012.[150]

c. Paul White was the principal rate-setter for Yen-LIBOR for RBS. According to an article in *Businessweek*, Mr. White was fired by UBS in November 2011 in connection with the circumstances brought to light by the Singapore lawsuit.[151]

d. Tan Chi Min was the head of short-term interest rate trading for Yen and the head of Delta One trading at RBS. In his Singapore lawsuit, Mr. Tan alleges that RBS fired him " because he tried to improperly influence the bank's rate setters from 2007 to 2011 to persuade them to offer Libor submissions that would benefit his trading positions."[152]

e. Sim Suh Ting was the executive director and head of regulatory risk & compliance for South East Asia. According to the Singapore lawsuit, Mr. Ting "[S]ent an internal e-mail to Robert Brennan and Todd Morakis 'to the effect that it was acceptable for a trader to request the SOR rate setters that the SOR be set at a specific level.'"[153]

f. Todd Morakis was the managing director at RBS. According to the Singapore lawsuit, Mr. Morakis "orally confirmed to [Tan] round October [2011] that 'the

[149] http://citywire.co.uk/new-model-adviser/ubs-suspends-traders-amid-libor-probe/a567164
[150] *Id*.
[151] http://www.businessweek.com/news/2012-03-27/rbs-rate-traders-sat-with-libor-setter-fired-employee-tan-says.
[152] *Id*.
[153] *Id*.

practice of requesting to change the rate Libor is common in every rate setting environment in the banking industry.'" [154]

g. Thomas Hayes was a derivatives trader for Citibank. According to an article in the *Financial Times*, Mr. Hayes "attempted to pressure colleagues and employees at other banks involved in the rate-setting process for the Tokyo Interbank Offered Rate, or Tibor."'[155]

h. Christopher Cecere was the head of G10 trading and sales for Asia at Citibank. The Japanese FSA found that Mr. Cecere "and another Citigroup trader engaged in 'seriously unjust and malicious' conduct by asking bankers to alter data they submitted while setting a benchmark Japanese lending rate."[156]

i. Brent Davies was a sterling trader at RBS in London. According to an article in *Businessweek*, Mr. Davies was named in Canadian Competition Law Officer Brian Elliott's May 18, 2011 affidavit as one of the traders believed to be involved in the manipulation of Yen LIBOR. According to the affidavit, Trader A explained to Mr. Davies who his collusive contacts were and how he had and was going to manipulate Yen LIBOR. Trader A also communicated his trading positions, his desire for certain movement in Yen LIBOR and gave instructions for Mr. Davies trader to get RBS to make Yen LIBOR submissions consistent with Trader A's wishes. Mr. Davies trader acknowledged these communications and confirmed that he would follow through. Trader A and Mr. Davies also entered into transactions that aligned their trading interest in regards to Yen LIBOR.[157]

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[154] *Id*.
[155] http://www.ft.com/intl/cms/s/0/7089ffda-534a-11e1-aafd-00144feabdc0.html#axzz1qWqNwPlz
[156] http://www.businessweek.com/news/2012-02-16/ex-citigroup-trader-denies-wrongdoing-in-tibor-probe.html
[157] Brian Elliott's May 18, 2011 Affidavit, Ontario Superior Court.

j. Will Hall was a derivatives trader at RBS in London. He was named in Canadian Competition Law Officer Brian Elliott's May 18, 2011 affidavit as one of the traders believed to be involved in the manipulation of Yen LIBOR. According to the affidavit, Trader A communicated to Mr. Hall his trading positions, his desire for a certain movement in Yen LIBOR and instructions to get RBS to make Yen LIBOR submissions consistent with his wishes, and Mr. Hall agreed to do this.[158]

k. Paul Glands was a derivatives trader with JP Morgan. He was named in Canadian Competition Law Officer Brian Elliott's May 18, 2011 affidavit as one of the traders believed to be involved in the manipulation of Yen LIBOR. According to the affidavit, Trader A communicated to Mr. Glands his trading positions, his desire for a certain movement in Yen LIBOR and instructions to get JP Morgan to make Yen LIBOR submissions consistent with his wishes, and Mr. Glands agreed to do so.[159]

l. Stewart Wiley was a derivatives trader with JP Morgan. He was named in Canadian Competition Law Officer Brian Elliott's May 18, 2011 affidavit as one of the traders believed to be involved in the manipulation of Yen LIBOR. According to the affidavit, Trader A communicated to Mr. Wiley his trading positions, his desire for a certain movement in Yen LIBOR and instructions to get JP Morgan to make Yen LIBOR submissions consistent with his wishes, and Mr. Wiley agreed to do so.[160]

m. Guillaume Adolph was a derivatives trader at Deutsche Bank. He was named in Canadian Competition Law Officer Brian Elliott's May 18, 2011 affidavit as one of the traders believed to be involved in the manipulation of Yen LIBOR. According to the affidavit,

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[158] *Id*.
[159] *Id*.
[160] *Id*.

Trader A communicated to Mr. Adolph his trading positions, his desire for a certain movement in Yen LIBOR and instructions to get JP Morgan to make Yen LIBOR submissions consistent with his wishes, and Mr. Adolph agreed to do so.[161]

n. Peter O'Leary was a derivatives trader at HSBC. He was named in Canadian Competition Law Officer Brian Elliott's May 18, 2011 affidavit as one of the traders believed to be involved in the manipulation of Yen LIBOR. According to the affidavit, Mr. O'Leary was instructed by Trader A at UBS "to get HSBC to make Yen LIBOR submissions consistent with his wishes." [162]

o. Andrew Hamilton is a former investment advisor at RBS in London. According to an article in *Bloomberg*, Mr. Hamilton was dismissed by RBS on October 21, 2011 and now is listed as inactive on the U.K. Financial Services Authority's register of people approved to work in the industry. [163]

p. Neil Danzinger is a former trader at RBS in London. According to an article in *Bloomberg*, Mr. Danzinger was dismissed by RBS on October 21, 2011 and now is listed as inactive on the U.K. Financial Services Authority's register of people approved to work in the industry. [164]

q. Brian McAppin was Citigroup's brokerage head in Japan. According to an article in the *Wall Street Journal*, the Japanese investigation found that he "overlooked" alleged attempts by the two traders to influence interest rates despite "recognizing these actions."[165]

<u>THE DISCOVERY RULE, FRAUDULENT CONCEALMENT, AND TOLLING OF THE STATUTE OF LIMITATIONS.</u>

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[161] *Id*.
[162] *Id*.
[163] http://www.bloomberg.com/news/2012-02-09/rbs-said-to-dismiss-4-bankers-as-libor-probe-widens-to-brokers.html
[164] *Id.*
[165] http://online.wsj.com/article/SB10001424052970203315804577207212704268678.html.

308. The OTC Plaintiffs did not discover and could not have discovered through the exercise of reasonable diligence that they were injured by any LIBOR manipulation, much less who caused that injury until, at the very earliest, March 15, 2011, when the government investigations into the panel banks were revealed to the public for the first time.

309. Before the government investigations into the panel banks' alleged misconduct was revealed for the first time on March 15, 2011, OTC Plaintiffs could not have stated facts plausibly suggesting a concerted and conspiratorial effort to under-report LIBOR.

A. The Unlawful Activity Was Inherently Self-Concealing.

310. The panel banks conspired to share their interest rate information and falsely report interest rate information to the BBA and Reuters. Their purpose was to depress USD-LIBOR to artificially low levels and thereby manipulate the price for Eurodollar futures and other exchange-based contracts.

311. By its very nature, the panel banks' alleged misconduct was self-concealing. First, the panel banks' actual or realistic interest rates were not public information, making any comparison to the rates they published to the BBA, and in turn Reuters, and any discernment of discrepancies an impossibility. Second, the panel banks' internal communications and communications among each other were not public information, rendering impossible any ascertainment of the specific misconduct of individual panel bank or the conspiracy. Third, the panel banks trades on the exchanges or in the markets for LIBOR products were not public information, making it impossible to discern that they were using their false LIBOR reports to cause artificial prices and engage in manipulative trading.

312. Specifically, the evidence supporting a plausible inference of conspiracy among the defendants to effectuate their suppression of LIBOR would not and could not have been

discovered prior to March 15, 2011. As a result of the self-concealing nature of the panel banks' collusive scheme, no person of ordinary intelligence would previously have discovered their conspiracy to manipulate LIBOR or the manipulative trades to the detriment of OTC Plaintiffs and the Class.

B. <u>In Addition To Engaging In Inherently Self-Concealing Misconduct, The Panel Banks Engaged In A Concerted Media Strategy Of Affirmatively Providing Plausible (But False) Alternative Explanations For The (In Actuality) Manipulated LIBOR.</u>

313. In late Spring 2008, the media began to engage in *speculation* that the LIBOR banks were under-reporting their LIBOR quotes.

314. In any event, the panel banks engaged in a media strategy that had the effect of diffusing speculation and further concealing their conduct. In particular, the panel banks provided affirmative, public assurances that there were innocent, plausible explanations for the divergence in LIBOR quotes that were the subject of media speculation. Because of the panel banks' affirmative statements plaintiff's continuing ignorance as to their claims was not a result of a lack of due diligence.

315. On April 21, 2008, Dominic Konstam of Credit Suisse affirmatively stated that the low LIBOR quotes were attributable to the fact that U.S. banks, such as Citibank and JP Morgan, had access to large customer deposits and borrowing from the Federal Reserve and did not need more expensive loans from other banks. "Banks are hoarding cash because funding from the asset-backed commercial paper market has fallen sharply while money market funds are lending on a short term basis and are restricting their supply."[166] This alternative explanation had the effect of diffusing any speculation that the panel banks were engaged in a manipulation

[166] Gillian Tett & Michael Mackenzie, "Doubts Over Libor Widen," FT.com, available at http://www.ft.com/cms/s/0/d1d9a792-0fbd-11dd-8871-0000779fd2ac.html#axzz1szdS58jE, last accessed on April 24, 2012.

of LIBOR.

316. On April 21, 2008, Jeffrey Rosenberg, head of credit strategy at Bank of America Securities, echoed Mr. Konstam's misrepresentation. Mr. Rosenberg affirmatively misrepresented that LIBOR's divergence was the result of systemic conditions rather than active manipulation, explaining that the BBA approach "works when both overall bank risk is low and the dispersion of risks across banks is small … [however, that] is clearly not the case currently."[167]

317. In an April 28, 2008 interview with *The Financial Times* Credit Suisse's Dominic Konstam continued to reinforce LIBOR's reliability. "Libor has been a barometer of the need for banks to raise capital. The main problem with LIBOR is the capital strains facing banks … Initially there was some confusion that LIBOR itself was the problem, with talk of the rate being manipulated and not representative of the true cost of borrowing."[168]

318. On May 16, 2008, in response to a media inquiry, JP Morgan affirmatively misrepresented that "[t]he Libor interbank rate-setting process is not broken, and recent rate volatility can be blamed largely on reluctance among banks to lend to each other amid the current credit crunch."[169] "Everyone is funding at a similar level," said Terry Belton of JP Morgan, "but when credit conditions worsen and we have periods like this of unprecedented turmoil, the reality is there is not a single borrowing rate." This alternative explanation had the effect of diffusing any speculation that the panel banks were engaged in a manipulation of

[167] *Id*.

[168] Michael Mackenzie, "Talk of quick fix recedes as Libor gap fails to close," FT.com, available at http://www.ft.com/intl/cms/s/0/3da27a46-5d05-11dd-8d38-000077b07658.html#axzz1szdS58jE, last accessed on April 24, 2012.

[169] Kirsten Donovan, Jamie McGeever, Jennifer Ablan, Richard Leong & John Parry, "European, U.S. bankers work on Libor problems," reuters.com, available at: http://in.reuters.com/article/2008/05/16/markets-rates-bba-idINL162110020080516, last accessed on April 24, 2012.

LIBOR.

319. That very same day, Colin Withers of Citigroup assured the public that LIBOR remained reliable. "We need to let the dust settle, markets stabilize and then have a review. But the measures we are using are historic -- up to 30 to 40 years old."[170]

320. In May 2008, *The Wall Street Journal* asked various panel banks to comment on the media speculation concerning divergence in LIBOR quotes. Rather than declining or refusing to comment, the panel banks made affirmative representations designed to further conceal their wrongdoing. On May 29, 2008, Citibank affirmatively claimed innocence and stated that it continued to "submit [its] Libor rates at levels that accurately reflect our perception of the market." HBOS similarly denied the *Journal's* allegations, asserting that its rate quotes were a "genuine and realistic" indication of its borrowing costs.[171]

C. **The BBA's Public Statements Also Had The Effect Of Concealing The Panel Banks' Misconduct.**

321. In addition, throughout 2008, the BBA engaged in affirmative acts that diffused any speculation that LIBOR had been or was being manipulated. Although the BBA announced on April 17, 2008 that it would push forward its annual review of the LIBOR rate-setting process, seemingly in response to media speculation concerning rate manipulation, a BBA spokesman affirmatively stated that the review was a "relatively simple auditing process to check that the figures are consistent."[172] Indeed, the same BBA spokesman assured the public that the BBA did not believe "the data we collect is anything other than accurate."[173]

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170 *Id*.

171 Carrick Mollencamp & Mark Whitehouse, "Study Casts Doubt on Key Rate," *The Wall Street Journal*, May 29, 2008.

172 Allistair Barr, "BBA to start Libor review earlier as rate spikes," MarketWatch.com, available at http://articles.marketwatch.com/2008-04-17/news/30791717_1_lending-rates-interest-rates-libor, last accessed on April 25, 2012.

173 Jessica Mortimer, "U.K.'s BBA confirms bringing forward Libor review but denies issues of

Footnote continued on next page

322. LIBOR increased exponentially in the days following the BBA's announcement. The BBA admitted that banks "were likely to have reconsidered the information they supplied for use in setting Libor." However, on April 18, 2008, the BBA continued to affirmatively assert that rate quotes submitted prior to the BBA's announcement were more the result of "concerns about difficult market place conditions than questions about credibility."[174]

323. Much like the panel banks, the BBA also made affirmative, public assurances that there were innocent, plausible explanations for the divergence in LIBOR quotes that were the subject of media speculation. By way of example:

a. On May 13, 2008, Angela Knight, CEO of the BBA, explained to bloomberg.com that the BBA audit was needed to determine if the divergence was the result of "difficult markets" or was "giving the right answer, just one that people don't want to hear." Ms. Knight stressed that rate swings were "hardly surprising" given credit markets.[175]

b. On September 16, 2008, the BBA explained that the "Libor overnight rate recognizes that, in the current uncertain market, banks are looking to their own liquidity as the priority … This is particularly reflected in the US Dollar because of the well-known world wide shortage of this currency."[176]

Footnote continued from previous page
credibility," lse.co.uk, available at: http://www.lse.co.uk/FinanceNews.asp?ArticleCode=0ojr2utyp0yw3y2&ArticleHeadline=U.K.s_BBA_confirms_bringing_forward_Libor_review_but_denies_issues_of_credibility, last accessed on April 25, 2012.

[174] Peter Taylor, "Dollar Libor soars as banks rethink their borrowing rates," *The Daily Telegraph*, April 18, 2008.

[175] Ben Livesey & Gavin Finch, "Libor Set for Overhaul as Credibility Is Doubted (Update1)," bloomberg.com, available at: http://www.bloomberg.com/apps/news?pid=newsarchive&sid=az3eSerjPuDA&refer=home, last accessed on April 25, 2012.

[176] Michael Mackenzie & David Oakley, "Banks make their own liquidity a priority," FT.com, available at http://www.ft.com/cms/s/0/20d62052-8424-11dd-bf00-000077b07658.html#axzz1t4N9ezuQ, last accessed on April 25, 2012.

324. The BBA also attempted to defuse speculation premised on LIBOR's divergence from the default insurance market. The BBA stated that LIBOR was reliable, and that the financial crisis had caused many indicators to act in unusual ways. On May 29, 2008, a spokesman for the BBA stated that there was "no indication" that the default insurance market provided a picture of banks' borrowing costs more accurate than that provided by LIBOR.[177]

325. In sum, the BBA's alternative explanations, in conjunction with the panel banks' affirmative representations and the inherently self-concealing nature of the conduct at issue, made it impossible for OTC Plaintiffs to state facts setting forth a plausible manipulation claim before the public announcement of government investigations.

D. The Truth Was Not Revealed For The First Time Until March 15, 2011

326. The truth was not revealed until March 15, 2011, when UBS released its annual report 20-F stating that it had received subpoenas from the Department of Justice, the SEC, the CFTC, as well as an information request from the Japanese Financial Supervisory Agency, all relating to its interest rate submissions to the BBA. UBS described the focus of the investigation as "whether there were improper attempts by UBS, either acting on its own or together with others, to manipulate LIBOR at certain times."

327. In addition, on March 16, 2011, the *Financial Times* reported that "[a]ll the panel members are believed to have received at least an informal request for information—an earlier stage in an investigation process before a subpoena."[178]

328. In the weeks and months that followed, the extent of the panel banks' collusive

[177] Michael Mackenzie, "Talk of quick fix recedes as Libor gap fails to close," FT.com, available at http://www.ft.com/intl/cms/s/0/3da27a46-5d05-11dd-8d38-000077b07658.html#axzz1szdS58jE, last accessed on April 24, 2012.

[178] Brooke Masters, Patrick Jenkins & Justin Baer, "Big banks investigated over Libor," FT.com, available at: http://www.ft.com/intl/cms/s/0/ab563882-4f08-11e0-9c25-00144feab49a.html#axzz1szdS58jE, last accessed on April 24, 2012.

scheme to manipulate the value of USD-LIBOR was publicly revealed for the first time. A steady stream of media reports revealed that a number of domestic and foreign regulatory and enforcement agencies had begun to investigate the panel banks, finally indicating to the public that the panel banks had indeed conspired to manipulate USD-LIBOR. By way of example:

a. On March 23, 2011, *Bloomberg* revealed that Citigroup Inc., Deutsche Bank, BAC, and JPMorgan Chase were asked by U.S. regulators "to make employees available to testify as witnesses" in connection with the regulators' ongoing investigation.[179]

b. The next day, the *Financial Times* reported that Defendant Barclays was "emerging as a key focus of the US and U.K. regulatory probe into alleged rigging of [LIBOR]." According to the Times, investigators were "probing whether communications between the bank's traders and its treasury arm," which helps set LIBOR, "violated 'Chinese wall' rules that prevent information-sharing between different parts of the bank." The *Times* further stated investigators were "said to be looking at whether there was any improper influence on Barclays' submissions" during 2006-2008 for the BBA's daily survey used to set LIBOR.[180]

c. On May 23, 2011, the *Telegraph* reported that the Federal Bureau of Investigation ("FBI") was working with regulators in connection with the LIBOR investigations, and the FBI's British counterpart, the Serious Fraud Office, "revealed it is also taking an active interest."

d. On October 19, 2011, *The Wall Street Journal* reported that the European Commission "seized documents from several major banks" the previous day, "marking the

[179] Joshua Gallu and Donal Griffin, "Libor Probe Spurs Witness Call-up at Citigroup, Deutsche Bank," *Bloomberg*, March 23, 2011.
[180] Brooke Masters and Megan Murphy, "Barclays at centre of Libor inquiry," FT.com, March 24, 2011, available at: http://www.ft.com/intl/cms/s/0/1c3228f6-5646-11e0-82aa-00144feab49a.html#axzz1sJNEDIiI, last accessed on April 17, 2012.

escalation of a worldwide law-enforcement probe" regarding the Euro Interbank Offered Rate, or Euribor—a benchmark, set by more than 40 banks, used to determine interest rates on trillions of euros' worth of euro-denominated loans and debt instruments. The Euribor inquiry, *The Wall Street Journal* explained, constitutes "an offshoot" of the broader LIBOR investigation that had been ongoing for more than a year.

329. Moreover, while the governments' investigations became public information in March 2011, the facts necessary to plausibly state claims for conspiracy and manipulation have become available as the panel banks' improper motive finally became apparent. For example, as discussed above, affidavits filed in a Canadian regulatory proceeding investigating Yen-LIBOR revealed that traders with the Canadian subsidiaries and/or affiliates of Defendants routinely discussed trading strategies, expected LIBOR quotes, and other confidential business information in an attempt to manipulate the value of Yen-LIBOR and commodities whose value is based directly on that measure.

330. It is noteworthy that, in stark contrast to their earlier media campaign of offering innocent (but false) explanations for their LIBOR quotes, the panel banks began simply declining to comment to the media. For example, after March 15, 2011, representatives of Deutsche Bank, Bank of America, Citigroup, Credit Suisse, JP Morgan, Barclays and Lloyds have specifically declined to comment in response to inquiries concerning whether the panel banks colluded to artificially reduce LIBOR.

331. Likewise, in stark contrast to its 2008 conclusions that LIBOR was reliable, in February 2011 the BBA expanded the Panel of banks that contribute to U.S. dollar LIBOR from sixteen to twenty members.

332. The OTC Plaintiffs and members of the Class had no knowledge of the unlawful

conduct alleged in this Complaint, or of any facts that could or would have led to the discovery thereof, until the government investigations became public on March 15, 2011.

333. Because the panel banks employed acts and techniques that were calculated to wrongfully conceal the existence of such illegal conduct, the OTC Plaintiffs and the Class could not have discovered the existence of this unlawful conduct any earlier than its public disclosure on March 15, 2011.

334. Because of the panel banks' fraudulent concealment, any applicable statute of limitations affecting or limiting the rights of action by the OTC Plaintiffs or members of the Class has been tolled during the period of such fraudulent concealment.

E. Other Tolling Principles

335. In addition, any applicable statute of limitations affecting or limiting the rights of action by the OTC Plaintiffs or members of the Class has been tolled by the filing of other class actions against the panel banks, commencing in April 2011.

336. The panel banks are equitably estopped to assert that any otherwise applicable period of limitations has run.

337. The panel banks' conduct as alleged herein constitutes a continuing violation of law. The OTC Plaintiffs and members of the Class bring this action within two years of the end of such continuing violation.

DEFENDANTS' ANTITRUST VIOLATIONS

338. During the Class Period, as explained above, the panel banks and their co-conspirators engaged in a continuing agreement, understanding, or conspiracy in restraint of trade to artificially fix, maintain, suppress and stabilize LIBOR and thus the prices and rates of return on LIBOR-Based Derivatives sold by them.

339. In formulating and effectuating the contract, combination, or conspiracy, the panel banks and their co-conspirators engaged in anticompetitive activities, the purpose and effect of which were to fix, maintain, suppress and otherwise make artificial the price of LIBOR-Based Derivatives. These activities included the following:

a. The panel banks participated in meetings and/or conversations to unlawfully discuss their reporting of their borrowing rates to Thomson Reuters for calculation of the daily LIBOR;

b. The panel banks agreed during those meetings and conversations to unlawfully report their borrowing rates to Reuters for calculation of LIBOR in order to drive down LIBOR and otherwise to depress or make artificial LIBOR;

c. The panel banks signaled to one another their intention to depress or otherwise make artificial LIBOR and colluded with one another in achieving this unlawful and anticompetitive purpose; and

d. Pursuant to such an unlawful conspiracy in restraint of trade, the panel banks knowingly and collusively traded in order to depress or otherwise make artificial the price of LIBOR-Based Instruments.

DEFENDANTS' CONDUCT CAUSED SIGNIFICANT INJURY

A. The Panel Banks Understood That Their Collusion Injured Counterparties.

340. The panel banks themselves understood that the collusion to suppress LIBOR had serious consequences for the prices of derivatives and LIBOR-based products being offered to their customers. For instance, according to the CFTC's order on Barclays, Barclays actually communicated these concerns to the FSA; the bank reported that there were "problematic actions" by some banks, that "LIBOR submissions by the panel banks were distorted due to market illiquidity," and critically, "***that Barclays had concerns about the trillions of dollars of***

derivatives fixed off LIBOR." CFTC Order at 22 (emphasis added). Barclays also admitted that on some occasions, when it made "improperly low" USD LIBOR submissions, Barclays DOJ SOF ¶ 36, "the manipulation of Barclays's submissions affected the fixed rates." Barclays DOJ ¶ 41.

341. The CFTC similarly found that "UBS's false submissions contained market information that affected or tended to affect LIBOR, Euribor and Euroyen TIBOR, commodities in interstate commerce."

342. By conspiring to manipulate LIBOR, the panel banks caused grave harm to international financial markets.

> The integrity of benchmark reference rates such as LIBOR and EURIBOR is of fundamental importance to both UK and international financial markets. Barclays' misconduct could have caused serious harm to other market participants. Barclays' misconduct also created the risk that the integrity of LIBOR and EURIBOR would be called into question and that confidence in or the stability of the UK financial system would be threatened.
>
> Barclays FSA ¶19.

B. Plaintiffs Suffered Injuries Resulting from the Panel Banks' Conduct.

343. Plaintiffs and Class Members were injured by the panel banks' anticompetitive collusion because they transacted in LIBOR-Based Instruments at supracompetitive prices: they paid more, received less, or both on LIBOR-Based Instruments than they would have absent the panel banks' collusive restraint.

344. For example, plaintiff Baltimore entered into interest rate swaps with various Defendants in which Baltimore paid fixed rates to Defendants and received in exchange floating rates tied to LIBOR:

a. In 2002, Baltimore entered into a thirty-year interest rate swap agreement with defendant UBS (the "UBS Swap"), in which, on the first business day of each month,

Baltimore agreed to pay UBS a fixed interest rate amounting to 6.098% per year on a notional amount of $69,9650,000 (amortized according to a schedule in the swap confirmation) and, in exchange, UBS paid Baltimore a floating interest rate of the one-month USD LIBOR on the notional amount.

b. In 2010, Baltimore entered into a ten-year interest rate swap agreement with defendant Deutsche Bank (the "DB Swap") in which, on the fifteenth day of each month, Baltimore agreed to pay Deutsche Bank a fixed interest rate amounting to 4.97% per year on a notional amount of $17,155,000 (amortized according to a schedule in the swap confirmation) and, in exchange, Deutsche Bank paid Baltimore a floating interest rate of the one month USD LIBOR on the notional amount.

345. Baltimore agreed to pay certain fixed rates in its interest rate swaps based on the expectation that the floating payments it would receive over the life of the contract would be calculated based on LIBOR submissions that conformed to the LIBOR definition, an accurate measure of interbank borrowing costs (in the UBS Swap and the DB Swap, the 1-month LIBOR, or the cost of borrowing money on the interbank market for one month). Instead of receiving what it had bargained for, however, Baltimore received something worth far less. From August 2007 to May 2010, LIBOR did *not* accurately reflect interbank borrowing costs and did not conform to the LIBOR definition but rather was artificially suppressed by the Defendants' conspiracy. Baltimore therefore paid a supracompetitive price in two ways: First, it overpaid on the fixed leg of the swaps—it paid 6.098% as a fixed rate on the UBS Swap and 4.97% on the fixed leg of the DB Swap for something that was worth far less than it would have been worth in a market free of Defendants' collusive restraint. Second, it received less than it would have in a market free from Defendants' restraint because for a period of time it received only artificially

and collusively suppressed LIBOR, rather than a LIBOR accurately reflecting interbank borrowing rates. In both cases, Baltimore paid supracompetitive prices directly due to Defendants' collusion.

346. All Class Members were injured in the same way as Baltimore. All Class Members, regardless of the LIBOR-Based Instrument they owned, were injured because they transacted at supracompetitive prices because of Defendants' collusive restraint of trade. Class Members' LIBOR-Based Instruments paid Class Members returns tied to LIBOR; when the panel banks collusively suppressed LIBOR, the panel banks directly altered the returns tied to LIBOR on Class Members' LIBOR-Based Instruments and thus directly diminished the value of the payments Class Members received.

347. As the government investigations of Barclays, UBS, and RBS have made clear, manipulation of LIBOR on particular dates benefited the panel banks financially to the detriment of counterparties like Baltimore. For example, a suppression of the 1-month USD LIBOR on the first business day of each month, the date when Baltimore and UBS exchanged payments in the UBS Swap, would benefit UBS to Baltimore's detriment: UBS would pay less to Baltimore on those dates than it would have paid had it not suppressed LIBOR. Similarly, suppression of the 1-month USD LIBOR on the 15th day of each month, the date when Baltimore and Deutsche Bank exchanged payments in the DB Swap, would benefit Deutsche Bank to Baltimore's detriment: Deutsche Bank would pay less to Baltimore on those dates than it would have paid had it not suppressed LIBOR.

348. Thus, when the panel banks conspired to manipulate LIBOR in a way that benefited their trading positions, their counterparties, including Class Members, lost money as a result of that collusive manipulation.

a. UBS admitted this:

> When UBS derivatives traders influenced the submissions of other Contributor Panel banks – either by (1) seeking and receiving accommodations from their counterparts at such banks, or (2) influencing the submissions from other banks with assistance from cash brokers who disseminated misinformation in the marketplace – the manipulation of those submissions affected the fixed benchmark rates on various occasions….
>
> In the instances when the published benchmark interest rates were manipulated in UBS's favor due to UBS's manipulation of its own or any other Contributor Panel bank's submissions, that manipulation benefitted UBS derivatives traders, or minimized their losses, to the detriment of counterparties, at least with respect to the particular transactions comprising the trading positions that the traders took into account in making their requests to the rate submitters.
>
> UBS DOJ ¶¶ 92, 96.

b. RBS admitted this:

> [RBS] negotiated and entered into derivatives transactions with counterparties knowing that that those counterparties were unaware of the efforts by RBS employees to manipulate the relevant LIBOR rate.
>
> Traders, former traders, and/or submitters at competing financial institutions agreed to coordinate with regard to Yen LIBOR submissions, causing the manipulation of the LIBOR reference rate on certain occasions. Because Yen LIBOR was a pricing component of derivatives contracts held by the financial institutions, the traders benefited from this agreement by affecting the profitability of the contracts on particular settlement dates.
>
> RBS DOJ ¶81-82.

c. Barclays admitted this:

> In the instances when the published rates were manipulated in Barclays's favor due to Barclays's manipulation of its submissions, that manipulation benefitted Barclays swaps traders, or minimized their losses, to the detriment of counterparties, at least with respect to the particular transactions comprising the trading positions that the traders took into account in making their requests to the rate submitters.

Barclays DOJ ¶32.

349. Plaintiffs and Class Members also paid supracompetitive prices to Defendants in that they assumed credit risk for which they were not adequately compensated. A party entering into a LIBOR-Based Instrument with a Defendant wanted to know not just the financial terms of the instrument (for example, the fixed rate in an interest rate swap) but also the creditworthiness of its counterparty and the systemic stresses faced by the financial system as a whole that could impact its counterparty's creditworthiness. A party transacting with a less creditworthy counterparty or at a time of systemwide financial stress that could affect its counterparty would demand better terms—for example, the ability to pay a lower fixed rate in an interest rate swap—to compensate for exposure to increased credit risk. However, because of the panel banks' collusive LIBOR suppression, each Defendant's individual LIBOR quotes were lower than they should have been (so that they did not accurately reflect each Defendant's creditworthiness), and the composite LIBOR was lower than it should have been (so that it did not accurately reflect the systemic stresses faced by the financial system as a whole). Plaintiffs and Class Members thus overpaid by assuming credit risk for which they were not adequately compensated due to both (a) bank-specific credit risk that was higher than it appeared due to artificially low LIBORs and (b) systemic stresses to the financial system that were more severe than they appeared due to artificially low composite LIBOR.

C. The Panel Banks' Collusion Harmed Competition and Caused Antitrust Injury to Plaintiffs.

350. Plaintiffs suffered antitrust injury as a result of at least the following anticompetitive aspects of the panel banks' conduct.

351. First, the panel banks' anticompetitive conduct had severe adverse consequences on competition in that the OTC Plaintiffs and other members of the Class who traded in LIBOR-

Based Instruments during the Class Period were trading at artificially determined prices that were made artificial as a result of the panel banks' horizontal price-fixing. As a consequence thereof, the OTC Plaintiffs and the Class suffered financial losses and were, therefore, injured in their business or property, as more fully described in Section B.

352. The conspiracy consisted of an agreement, understanding and concert of action among the panel banks, the substantial terms of which were to fix the price of LIBOR-based instruments by fixing LIBOR, a key component of the price thereof, during the Class Period. As the DOJ charged RBS on April 12, 2013, and RBS admitted, by colluding to fix LIBOR, the panel banks conspired to fix the price of LIBOR-based instruments, which was a conspiracy "in unreasonable restraint of interstate and foreign commerce."[181]

> COUNT TWO
> (Price Fixing)
>
> From at least as early as 2007 through at least 2010, Defendant THE ROYAL BANK OF SCOTLAND PLC, through its employees, and its co-conspirators, engaged in a combination and conspiracy in unreasonable restraint of interstate and foreign commerce. The aforesaid combination and conspiracy consisted of an agreement, understanding and concert of action among the Defendant and its coconspirators, the substantial terms of which were to fix the price of Yen LIBOR-based derivative products by fixing Yen LIBOR, a key component of the price thereof, on certain occasions.
>
> In violation of Title 15, United States Code, Section 1.
>
> DOJ RBS Information (4/12/13)

353. The panel banks are direct horizontal competitors with respect to the sale of LIBOR-Based Instruments. *See* Mem. of Law in Supp. of Defs. Mot. to Dismiss Antitrust Claims at 3 (June 29, 2012) (Doc. No. 166) ("Defendants do compete for the provision of loans

[181] In its Deferred Prosecution Agreement, RBS "acknowledge[d] and agree[d]" that the DOJ would file a criminal Information charging it with "one count of price-fixing, in violation of the Sherman Act, Title 15, United States Code, Section 1." RBS DPA p. 1. RBS also admitted that "the allegations described in the Information . . . are true and accurate." *Id.* p. 2.

and other financial products, some of which are indexed to USD LIBOR . . . ."); *id.* at 22 ("Banks are expected to compete in the marketplace of making loans, etc. . . .").

354. LIBOR is a component of the price of LIBOR-Based Instruments. In the "statement of facts" attached to its agreement with DOJ, RBS admitted that "Yen LIBOR was a pricing component of derivatives contracts held by the financial institutions." RBS SOF ¶87. The DOJ has also charged a former UBS employee, Thomas Hayes, with violating the Sherman Act by conspiring to fix Yen LIBOR as a component of price of LIBOR-based instruments. *See* Hayes-Darin Cmplt. at 3 ("The aforesaid combination and conspiracy consisted of an agreement, understanding, and concert of action among HAYES and his co-conspirators, the substantial terms of which were to fix Yen LIBOR, a key price component of Yen LIBOR-based derivative products.").

355. During the Class Period, Defendants used LIBOR as the floating component of price on trillions of dollars of financial instruments, including the instruments they sold directly to plaintiffs. Defendants' collusive manipulation of LIBOR therefore directly affected a component of the price of the instruments Defendants sold to plaintiffs: it directly affected the rate used to compute the realized cash-flows on plaintiffs' LIBOR-Based Instruments. Rather than obtaining products from Defendants whose value reflected an untainted index—the Federal Reserve Eurodollar rate, or the Treasury Bill rate, or even an untainted LIBOR—plaintiffs obtained financial products whose value was reduced by Defendants' collusive suppression of a component of their price.

356. The Department of Justice charged RBS with price-fixing in violation of the Sherman Act and RBS admitted to the underlying facts. By letter dated March 22, 2013, the Department of Justice notified entities that entered into transactions with RBS that they may be a

victims of and may have been harmed by an antitrust violation by RBS, explaining:

> RBS and RBSSJ [RBS Securities Japan Limited] admit that certain RBS and RBSSJ traders attempted to manipulate and manipulated certain Yen and Swiss Franc LIBOR fixings on certain dates from 2006 through 2010 to benefit their trading positions in derivatives contracts to the detriment of counterparties to those contracts. RBS also admitted that certain traders conspired to fix prices in connection with Yen LIBOR from 2007 through 2010. To the extent RBS or RBSSJ traders were successful in manipulating Yen and/or Swiss Franc LIBOR, other parties to derivatives contracts, mortgages, loans, and/or credit cards that were tied to manipulated LIBOR rates also may have been harmed.

The DOJ's actions unequivocally demonstrate that the conduct engaged in by at least RBS was the type of which the antitrust laws were designed to prohibit and may have harmed those persons who concluded transactions at the fixed price.

357. Plaintiffs and Class Members—as in the RBS case, "parties to derivatives contracts" and "loans," among other financial products—have suffered a similar type of harm from collusive LIBOR suppression that victims in the RBS case suffered from RBS's LIBOR manipulation: they paid more, received less, or both on financial instruments tied to LIBOR than they would have absent Defendants' conspiracy to fix prices.

358. Second, Defendants' collusion restrained competition as to the benchmark in floating rate financial products.

359. In a free and competitive market, Defendants would have competed vigorously as to the benchmark used to calculate the floating component of price on various financial products to provide the best and most competitive products to their customers. They plainly did not do that.

360. As this Court noted:

> LIBOR is a proxy for the interbank lending market; indeed, it is precisely because LIBOR was thought to accurately represent prevailing interest rates in that market that it was so widely utilized as a benchmark in financial instruments.

In re LIBOR-Based Financial Instruments Antitrust Litigation, No. 11 MD 2262(NRB), 2013

WL 1285338, at *16 (S.D.N.Y. Mar. 29, 2013). But because of Defendants' collusion, LIBOR no longer accurately reflected the competitively-determined outcomes of the interbank lending market during the Class Period. Knowing that their collusion meant that LIBOR no longer served the function it was supposed to serve, Defendants in a competitive market would have competed to use alternative benchmarks that more accurately and reliably reflected actual competitive forces in the market. Instead, during the Class Period, Defendants adhered to LIBOR.

361. Evidence demonstrates that Defendants wanted to preserve the centrality of LIBOR rather than some other benchmark precisely because Defendants controlled LIBOR and could collude to manipulate it for their own ends. According to a press report, in November 2008, in response to complaints about LIBOR manipulation, the BBA "drew up plans to license Libor to an independent third party that would pay a fee to administer the rate instead of the BBA."[182] This proposal was rejected by Defendants because "when BBA staffers pitched the idea to industry executives, they got the impression that <u>***the big banks***</u>—which paid most of the BBA's bills through their membership fees—<u>***wanted Libor kept in-house so that they could continue to influence it***</u>, according to people familiar with the talks." *Id.* (emphasis added). By restraining competition as to the benchmark used to calculate the floating component of price, Defendants were able to maintain the dominance of LIBOR—a benchmark that they controlled and could collusively manipulate for their own ends, whether to generate profits for their trading books, to bolster their reputations in times of financial stress, or some other end.

362. Competitive market forces should have eliminated the use of LIBOR in financial

[182] David Enrich and Max Colchester, Before Scandal, *Clash Over Control of Libor*, Wall St. J., Sept. 12, 2012, *available at:* http://online.wsj.com/article/SB10000872396390443847404577631404235329424.html (emphasis added).

instruments. That did not happen. Instead, LIBOR was the dominant benchmark for financial instruments sold by Defendants during the class period, including those sold to plaintiffs. Defendants' anticompetitive conduct directly harmed Plaintiffs and Class Members, who were sold trillions of dollars of financial instruments whose price included a collusively-set LIBOR as a component.

363. Third, Defendants' conduct restrained competition as to creditworthiness.

364. LIBOR submissions reflect perceived creditworthiness. As the DOJ explained, and UBS admitted:

> Because a bank's LIBOR contributions, even if they are not based entirely on actual money market transactions, should correspond to the cost at which the bank perceives that it can borrow funds in the relevant market, a bank's LIBOR contributions may be viewed as an indicator of a bank's creditworthiness. If a bank's LIBOR contributions are relatively high, those submissions could suggest that the bank is paying more than others to borrow funds. Thus, a bank could be perceived to be experiencing financial difficulties because lenders were charging higher rates to that bank.

UBS DOJ ¶99.

365. Composite LIBOR reflected the creditworthiness of all large banks by acting as a measure of the stress faced by the financial system as a whole. As the BBA stated: "BBA LIBOR rates are calculated daily from the rates at which banks will agree to lend each other money, so it is accepted as an accurate barometer of how global markets are reacting to prevailing market conditions." (BBA, "Understanding BBA Libor—a briefing by the British Bankers' Association," May 27, 2010, *available at* bbalibor.com/download/1191).

366. In a competitive market, Defendants would compete with their peers, including other panel banks and all market participants, as to their perceived creditworthiness. Greater perceived creditworthiness benefits a bank in many ways, including in the market for LIBOR-Based Instruments: it can yield better collateral terms or fixed rates in interest rate swaps and

other derivatives, and better terms in LIBOR-based business lending and borrowing. Similarly, weak perceived creditworthiness can lead to lower ratings, collateral calls, and other actions that can harm or even threaten the life of a bank.

367. Defendants who could truthfully post lower LIBOR submissions had a competitive advantage over Defendants who could not truthfully post lower LIBOR submissions because of LIBOR's importance as an indicator of a bank's creditworthiness. In a free and competitive market, then, each Defendant would have competed to appear more creditworthy than other panel banks through the posting of lower truthful LIBOR submissions, and the stronger banks would not have tolerated artificially low LIBOR submissions from the weaker banks.

368. However, during the Class Period, Defendants restrained competition among the banks for the best market perception of their creditworthiness. Instead of competing fully with each other to post the lowest but accurate LIBOR submissions, they conspired to post artificially low LIBOR submissions as a "pack," which reduced or otherwise altered the magnitude of the differences between their relative creditworthiness. And the more creditworthy banks did not force the less creditworthy banks to post accurate LIBOR submissions so that the less creditworthy banks could be revealed as weaker, permitting the stronger banks to take their business. Instead, the stronger banks acceded to the weaker banks' posting of falsely low LIBORs.

369. The restraint of competition as to creditworthiness harmed plaintiffs in two ways. First, it enabled collusive suppression. Had Defendants competed vigorously over their creditworthiness by striving to submit the lowest but accurate LIBORs relative to the competition, the suppression conspiracy could never have happened in the first place.

370. Second, the reduction of competition as to creditworthiness injured plaintiffs and Class Members by causing them to assume credit risk for which they were not adequately compensated. With competition for creditworthiness restrained, each Defendant was not posting accurately low LIBORs but rather artificially low LIBORs, and so plaintiffs transacting with Defendants were overpaying because they were transacting on terms that did not accurately reflect each Defendant's true credit risk. Further, the restraint on competition as to creditworthiness resulted in artificially low composite LIBORs, causing plaintiffs to overpay because they were not adequately compensated for the systemic stress faced by the financial system as a whole, which was not accurately reflected during the Class Period in composite LIBOR.

371. The aforementioned anticompetitive aspects of Defendants' collusive conduct are not exhaustive, and Plaintiffs believe that with the benefit of additional discovery and expert analysis additional anticompetitive aspects will be discerned from their horizontal price-fixing scheme.

RULE OF REASON – RELEVANT MARKET AND ANTICOMPETITIVE EFFECTS

372. In the alternative to the *per se* theory of liability, plaintiffs allege that Defendants conspired to engage in an unreasonable restraint of trade that is anticompetitive under the rule of reason.

373. During the Class Period, there were relevant markets for each category of LIBOR-Based Instruments identified in ¶¶ 32–34. They are the relevant markets for LIBOR-Based Asset Swaps, Collateralized Debt Obligations, Credit Default Swaps, Forward Rate Agreements, Inflation Swaps, Interest Rate Swaps, Total Return Swaps, Options, and floating rate notes, and other LIBOR-linked Derivative and Non-Derivative Instruments.

374. Defendants have market power in each of the relevant markets. Defendants, as members of the LIBOR panel, had the ability to control and exercised control over LIBOR.

375. Defendants' control over LIBOR meant that they were able, in fact, to suppress LIBOR and cause prices of LIBOR-Based Instruments to be supracompetitive in the relevant markets and the other injuries and anticompetitive effects identified in Sections B and C. Defendants' ability to cause supracompetitive prices for LIBOR-Based Instruments in the relevant markets demonstrates their market power.

376. In addition, Defendants' agreement to exchange confidential, pre-publication LIBOR quotes also caused supracompetitive prices for LIBOR-Based Instruments in the relevant markets and the other injuries and anticompetitive effects identified in Sections B and C.

377. Defendants' conduct independently violates the Sherman Act under the rule of reason.

RELIEF[183]

FIRST CLAIM FOR RELIEF
VIOLATION OF SECTION 1 OF THE SHERMAN ACT

378. The OTC Plaintiffs incorporate by reference the preceding allegations.

379. Defendants, the other panel banks, and their unnamed co-conspirators entered into and engaged in a conspiracy in unreasonable restraint of trade in violation of Section 1 of the Sherman Act and Section 4 of the Clayton Act.

380. During the Class Period, Defendants and the other panel banks controlled what LIBOR quote would be reported and therefore controlled the rates of return on LIBOR-Based Derivatives sold by them.

[183] Plaintiffs previously asserted an antirust claim, breach of contract claim, and unjust enrichment claim against all defendants. Only those parts of the claims that survived motion to dismiss practice are included here, though Plaintiffs preserve all the dismissed claims for appeal, on behalf of themselves and the class.

381. The conspiracy consisted of a continuing agreement, understanding or concerted action between and among Defendants, the other panel banks, and their co-conspirators in furtherance of which Defendants fixed, maintained, suppressed, stabilized and/or otherwise made artificial LIBOR and thus the prices and rates of return on LIBOR-Based Derivatives sold by them. Defendants' conspiracy is a per se violation of the federal antitrust laws and is, in any event, an unreasonable and unlawful restraint of trade and commerce.

382. Defendants' conspiracy, and resulting impact on the market for LIBOR-Based Derivatives, occurred in or affected interstate and foreign commerce.

383. As a proximate result of Defendants' unlawful conduct, the OTC Plaintiffs and members of the Class have suffered injury to their business or property. The OTC Plaintiffs and members of the Class are each entitled to treble damages for the violations of the Sherman Act alleged herein.

SECOND CLAIM FOR RELIEF
BREACH OF IMPLIED COVENANT OF GOOD FAITH AND FAIR DEALING

384. The OTC Plaintiffs incorporate by reference the preceding allegations.

385. On June 17, 2002, Baltimore entered into an ISDA Master Agreement with UBS, as amended November 19, 2008. The agreement is governed by New York law.

386. Baltimore entered into several fixed-to-floating swaps with UBS governed by the ISDA Master Agreement in which Baltimore paid a fixed rate and received a floating rate identified in the swap confirmations as "USD-LIBOR-BBA" for a maturity of one month.

387. On January 19, 2010, Baltimore entered into an ISDA Master Agreement with Deutsche Bank. The agreement is governed by New York law.

388. Baltimore entered into several fixed-to-floating swaps with Deutsche Bank

governed by the ISDA Master Agreement in which Baltimore paid a fixed rate and received a floating rate identified in the swap confirmations as either 100% or 67% of "USD-LIBOR-BBA" for a maturity of one month.

389. On October 26, 2005, the City of New Britain Firefighters' and Police Benefit Fund entered into an ISDA Master Agreement with Deutsche Bank ("New Britain Deutsche Bank Master Agreement"). The agreement is governed by New York law.

390. The City of New Britain Firefighters' and Police Benefit Fund entered into several LIBOR-Based Instruments in 2008 with Deutsche Bank governed by the New Britain Deutsche Bank Master Agreement, and various Confirmations.

391. On November 26, 2007, TCEH entered into an ISDA Master Agreement with Barclays ("TCEH Barclays Master Agreement"). This is a binding and enforceable contract. The terms of the agreement are governed by New York law.

392. On December 11, 2007, TCEH entered into an ISDA Master Agreement with Citibank ("TCEH Citibank Master Agreement"). This is a binding and enforceable contract. The terms of the agreement are governed by New York law.[184]

393. TCEH owned and entered into several fixed-for-floating swaps during the Class Period with Barclays and Citibank governed by the TCEH Barclays Master Agreement and TCEH Citibank Master Agreement, and various Confirmations, in which TCEH paid fixed rates and received floating rates tied to LIBOR.

394. On or about November 9, 1999, Yale entered into an ISDA Master Agreement with Deutsche Bank ("Yale Deutsche Bank Master Agreement"). This is a binding and

[184] The Court denied the OTC Plaintiffs leave to amend their complaint to include TCEH's claims against Credit Suisse by Order dated November 3, 2015. Plaintiffs remove TCEH's claims against Credit Suisse from this amended complaint but preserve the claim and the issues for appeal.

enforceable contract. The terms of the agreement are governed by New York law.

395. On or about January 27, 1993, Yale entered into an ISDA Master Agreement with Morgan Guaranty Trust Company of New York, a predecessor of JP Morgan, which binds JP Morgan ("Yale JP Morgan Master Agreement"). This is a binding and enforceable contract. The terms of the agreement are governed by New York law.

396. During the Class Period, Yale owned and entered into several fixed-for-floating swaps with Deutsche Bank and JP Morgan, governed by the Yale Deutsche Bank Master Agreement and the Yale JP Morgan Master Agreement, and various confirmations, in which Yale paid fixed rates and received floating rates tied to LIBOR.

397. On or about February 15, 2006 and October 2, 2008, Jennie Stuart entered into provisional and final ISDA Master Agreements with Bank of America, N.A. ("Jennie Stuart Bank of America Master Agreement"). This is a binding and enforceable contract. The terms of the agreement are governed by New York law.

398. During the Class Period, Jennie Stuart owned and entered into at least one fixed-for-floating swap with Bank of America, governed by the Jennie Stuart Bank of America Master Agreement, and various confirmations, in which Jennie Stuart paid fixed rates and received floating rates tied to LIBOR.

399. During the Class Period, SEIU owned LIBOR-linked bonds in the listed quantities that were purchased from the specified Defendants or their directly controlled subsidiaries, as follows:

- 500,000 units of CUSIP 225434DS5, issued by Credit Suisse (USA), Inc., from Credit Suisse Securities (USA) LLC on November 15, 2006;
- 200,000 units of CUSIP 78008EWA1, issued by RBC, from RBC Dain Rauscher Inc. on

June 4, 2009

400. OTC Plaintiffs, and all class members, entered into binding and enforceable contracts with Defendants in connection with each of their purchases of LIBOR-based instruments (the "contracts").

401. Each of the contracts includes an implied covenant that each contracting Defendant will act in good faith and deal fairly with plaintiff, and that neither party shall do anything that will have the effect of destroying or injuring the right of the other party to receive the fruits of the contract.

402. Defendants breached the implied covenant of good faith and fair dealing by colluding to undermine plaintiffs' right to receive or make payments based on a LIBOR rate that is set according to the terms of the LIBOR definition. In breach of the covenant of good faith and fair dealing, the OTC Plaintiffs and other members of the Class who traded in LIBOR-Based Instruments during the Class Period were trading at artificially determined prices that were made artificial as result of Defendants' unlawful conduct and, as a consequence thereof, the OTC Plaintiffs and the Class suffered financial losses and were, therefore, injured in their business or property.

403. Defendants also breached the implied covenant of good faith and fair dealing by obtaining contractual benefits from their collusive and manipulative acts, in the form of paying less or receiving more LIBOR-based payments at the expense of the OTC Plaintiffs and members of the Class.

404. Defendants' collusion to manipulate the LIBOR rate, and submit rates that did not conform to the LIBOR definition, also frustrated the purpose of the contracts, which was to make and receive payments based on a LIBOR rate that is set according to the terms of the LIBOR

definition.[185]

405. As a direct and proximate cause of these breaches of the implied covenant of good faith and fair dealing and of Defendants' frustration of the purposes of these contracts, OTC Plaintiffs and class members have been damaged as alleged herein in an amount to be proven at trial.

THIRD CLAIM FOR RELIEF
UNJUST ENRICHMENT

406. The OTC Plaintiffs incorporate all proceeding paragraphs by reference.

407. It would be inequitable for Defendants to be permitted to retain the benefit which Defendants obtained from their manipulative acts and at the expense of the OTC Plaintiffs and members of the Class.

408. The OTC Plaintiffs and members of the Class are entitled to the establishment of a constructive trust impressed on the benefits to Defendants from their unjust enrichment and inequitable conduct.

409. Alternatively or additionally each Defendant should pay restitution or its own unjust enrichment to the OTC Plaintiffs and members of the Class.

RELIEF SOUGHT

1. Accordingly, the OTC Plaintiffs demands relief as follows:

2. That the Court determine that this action may be maintained as a class action under Rule 23(b)(3) of the Federal Rules of Civil Procedure, that the OTC Plaintiffs be appointed

[185] The Court held that Plaintiffs cannot state a claim for breach of an explicit contractual provision by Order dated August 23, 2013. Plaintiffs remove this allegation but preserve the claims and issues for appeal on behalf of themselves and the class.

as class representative, and that the OTC Plaintiffs' counsel be appointed as counsel for the Class;

3. That the unlawful conduct alleged herein be adjudged and decreed to be an unlawful restraint of trade in violation of Section 1 of the Sherman Act and Section 4 of the Clayton Act;

4. That Defendants, their subsidiaries, affiliates, successors, transferees, assignees and the respective officers, directors, partners, agents, and employees and all other persons acting or claiming to act on their behalf, be permanently enjoined and restrained from continuing and maintaining the conspiracy alleged in the Complaint;

5. That the OTC Plaintiffs and the Class recover damages, as provided under federal antitrust laws, and that a joint and several judgment in favor of the OTC Plaintiffs and the Class be entered against Defendants Bank of America, Citibank, and JPMorgan in an amount to be trebled in accordance with such laws;

6. That the OTC Plaintiffs and the Class recover damages or other relief permitted by law or equity for the breaches of contracts and unjust enrichment;

7. That the OTC Plaintiffs and the Class recover their costs of the suit, including attorneys' fees, as provided by law; and

8. That the Court direct such further relief it may deem just and proper.

DEMAND FOR JURY TRIAL

9. Pursuant to Rule 38(a) of the Federal Rules of Civil Procedure, the OTC Plaintiffs demand a jury trial as to all issues triable by a jury.

Dated: April 11, 2017

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